

| PROJECT         | CUSTOMER | TRAIN     |
|-----------------|----------|-----------|
| Xtrapolis-PRASA | PRASA    | 246 – TFS |

RTR Train Functional Static Testing TS246 Report  
GIB0000007243



|           | CREATED         | VERIFIED       | APPROVED        | DISTRIBUTION                                                                                                                                                        |
|-----------|-----------------|----------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | Neliswa MABUNDA | Sifiso LUKHELE | Kgomotso NKOANA | Confidentiality Category<br><i>Restricted</i> <i>Project</i> <i>Normal</i><br><input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> |
| Date      | 19/09/2024      | 19/09/2024     | 19/09/2024      | Control Category<br><i>Controlled</i> <i>Not Controlled</i><br><input checked="" type="checkbox"/> <input type="checkbox"/>                                         |
| Signature |                 |                |                 | Language<br><b>EN</b>                                                                                                                                               |

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### Table of modifications

| Rev | Date       | Modifications Content | Writer          |
|-----|------------|-----------------------|-----------------|
| A0  | 19/09/2024 | Creation              | Neliswa MABUNDA |

### Internal validations

|                 | Name            | Function            | Date       | Signature                                                                                                                       |
|-----------------|-----------------|---------------------|------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Creator</b>  | Neliswa MABUNDA | EPU Manager         | 19/09/2024 | X <br>Neliswa MABUNDA<br>EPU Manager         |
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### Execution Plan

|                   |            |
|-------------------|------------|
| <b>Start Date</b> | 15/09/2024 |
| <b>End Date</b>   | 19/09/2024 |

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## Section 1 – Purpose / Objectives

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1. NRG - The purpose of this test is to ensure that all high voltage cables and equipment are connected correctly.
2. NET - The purpose of this test is to verify the connection of the Ethernet wiring for the TCMS and Pacis network loop.
3. NRG 110 - The purpose of this test is to verify the presence of 110V DC permanent power on the train and the activation on the cab on both TC1 and TC2
4. MCB - The purpose of this test is to verify the correct operation of the High-Speed Circuit Breaker.
5. NRG 400 - The purpose of this test is to ensure the correct operation of all equipment supplied by 400V AC.
6. CAB - The purpose of this test is to verify to correct operation of each cabin.
7. INT - The purpose of this test is to verify the correct operation of the Emergency lighting and normal lighting in the train.
8. PNT - The purpose of this test is to verify the operation of the pantographs and air supply.
9. AIR - The purpose of this test is to verify the compressor operation on the train as well as to determine any leaks in the main piping system.
10. MCB - The purpose of this test is to ensure that all the safety circuit breakers are closed and they are properly monitored through the TCMS software
11. HVAC - The purpose of this test is to verify the Heating, cooling and ventilation of each car. The correct temperature response is verified.
12. DRC - The purpose of this test is to verify the correct driving operation modes and commands.
13. PBK - The purpose of this test is to verify the correct operation of both the manual and remote parking brake.
14. SBK - The purpose of this test is to verify the correct operation of the service brake system. This system integrates the mechanical and electrical braking together. Both must be fully operational.
15. EBK - The purpose of this test is to verify the correct operation of the mechanical braking system.
16. FSD - The purpose of this test is to verify the correct operation of the fire detection system.

## Section 2 – High Voltage Distribution

### 2.1 Instructions list

#### 2.1.1 010\_NRG-High Voltage Distribution

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | File | Result status | Result value | Operator                   | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|----------------------------|---------|
| 10001 | I    | Check the power lines, Non-earthed key                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | <p>For the following tests, the train should not have the presence of high voltage "3KV"</p> <p>For the following tests, the earthing switch of 10A11 boxes must be out of ground position</p> <p>Make sure all power lines not suffer attrition with the rail infrastructure, terminals, resistance and pantographs are fixed with proper torque and there is no tool or material on the roof of the train.</p> <p>At Depot, when it is necessary to access the train roof, person who is responsible for the activity should apply working knowledge in height with appropriate equipment.</p> <p>If there is any change to the train or it's environment this check becomes invalid. Please be sure that the check on the train status is done before reconnecting it.</p> |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | A    | Apply LOTO procedure on the High Voltage Catenary before commencing with the procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | I    | High Voltage Line Continuity Check                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | A    | Check continuity of the following cables using a long wire, do not short any point to ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |



|       |   |                                                                                                                                                        |  |    |  |                            |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|----------------------------|-------|
| 10006 | A | On TC1 car, from Converter Auxiliary Connector 18XT11 point HV+ cable (#1UP-W_1) to M4 car Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10007 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10008 | A | On M4 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) to M1 car High Voltage Box Connector 10XT11_HT1 point 3 cable (#1UM-V_2)   |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10009 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10010 | A | On M1 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to High Voltage Box Connector 10XT11_HT2 point 1 cable (#1UK-UM_1)         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10011 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10012 | A | On M1 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire                                                         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10013 | R | There is NO continuity.                                                                                                                                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10014 | A | On M2 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to High Voltage Box Connector 10XT11_HT2 point 1 cable (#1UK-UM_1)         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10015 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10016 | A | On M2 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire                                                         |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10017 | R | There is NO continuity.                                                                                                                                |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10018 | A | On M2 car, from High Voltage Box Connector 10XT11_HT1 point 3 cable (#1UM-V_2) to M3 car Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3)   |  | OK |  | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                                                                                                        |  |    |  |                            |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|----------------------------|-------|
| 10019 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10020 | A | On M3 car, From Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_3) to TC2 car Converter Auxiliary Connector 18XT11 point HV+ cable (#1UP-W_1) |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10021 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10022 | A | Put back all the removed covers and tighten                                                                                                            |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10023 | R | All covers are back and normalized                                                                                                                     |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10024 | I | End of Test                                                                                                                                            |  | OK |  | Siphesihle Mchunu - 491465 | Train |

## Section 3 – Energy Distribution 110V

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### 3.1 Instructions list

### 3.1.1 015\_NRG-Energy Distribution 110V

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                                                                | File                                                                                | Result status | Result value | Operator                        | Vehicle |
|-------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|---------------------------------|---------|
| 10001 | I    | Energy Distribution 110V DC=SPP 015                                                                                                                                                                                        |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10002 | I    | Initial Conditions                                                                                                                                                                                                         |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10003 | I    | Train powered in normal mode with only battery power                                                                                                                                                                       |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10004 | A    | Activate Cab on TC1                                                                                                                                                                                                        |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10005 | A    | Close the battery contactor 18S1                                                                                                                                                                                           |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10006 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10007 | R    | After few minutes, the TCMS has successfully initialized on the DDU screen                                                                                                                                                 |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10008 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |  | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10009 | R    | The Battery Voltage on the Voltage line module is 110V                                                                                                                                                                     |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10010 | R    | On the Driver Screen, the battery voltage is the same as in the line module (110V)                                                                                                                                         |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |
| 10011 | I    | Parameter Update                                                                                                                                                                                                           |                                                                                     | OK            |              | Nokuzola Mdluli - 491469        | Train   |
| 10012 | A    | Perform the following procedure to update the Energy saving parameters                                                                                                                                                     |  | OK            |              | Nokuzola Mdluli - 491469        | Train   |
| 10013 | I    | CVS Firmware Update/SW Update                                                                                                                                                                                              |  | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10014 | I    | When upgrading the software version ensure that both CVSs are online, and a train does not switch OFF and battery voltage should at least be 97V. Follow the instructions on the attachment for the upgrade in TC1 and TC2 |  | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10015 | I    | Power supply check for Equipment on Permanent line                                                                                                                                                                         |                                                                                     | OK            |              | Mlungisi Madela - 529927        | Train   |

|       |   |                                                                                                |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10016 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10017 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10018 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10019 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10020 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10021 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10022 | A | Remove active cab on TC1                                                                       |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10023 | I | Train preparation on TC2 cab                                                                   |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10024 | A | Insert the Driver's Master key on TC2, turn it to ON position and close battery contactor 18S1 |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10025 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10026 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10027 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10028 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10029 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10030 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                                                                                  |                                                                                     |    |  |                          |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|--------------------------|-------|
| 10031 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10032 | R | Train is successfully shutdown                                                                                                                   |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10033 | I | Battery Low Watchdog                                                                                                                             |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10034 | I | This test is to verify that the battery Watchdog relay is working, when the battery voltage drops below 93V DC, the train automatically shutdown |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10035 | A | On TC2, turn ON the cleaning lights switch 52S6                                                                                                  |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10036 | R | Emergency lighting is ON in all cars                                                                                                             |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10037 | A | Remove the relay 15K1 from its base                                                                                                              |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10038 | R | Emergency lighting is OFF in all cars                                                                                                            |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10039 | A | Put back the relay 15K1 on its base                                                                                                              |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10040 | A | Walk to the TC2 CVS Agate compartment and confirm that the CVS Agate is not powered                                                              |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10041 | R | The CVS Agate is OFF                                                                                                                             |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10042 | A | Switch On the train on TC1 side                                                                                                                  |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10043 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10044 | A | Turn the switch 52S6 to switch ON the cleaning lights                                                                                            |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10045 | A | Remove the relay 15K1 from its base                                                                                                              |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10046 | R | The emergency lighting is OFF in all cars                                                                                                        |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10047 | A | Put back the relay on its base                                                                                                                   |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10048 | A | Walk to the TC1 CVS Agate compartment and confirm that the CVS Agate is not powered                                                              |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10049 | R | The CVS Agate is OFF                                                                                                                             |                                                                                     | OK |  | Mlungisi Madela - 529927 | Train |
| 10050 | I | Train Earthing Procedure                                                                                                                         |  | OK |  | Mlungisi Madela - 529927 | Train |

|       |   |                                                              |  |    |  |                          |       |
|-------|---|--------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10051 | R | The train is successfully isolated and earthed.              |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10052 | A | Normalize the train                                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10053 | R | The train is normalized.                                     |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10054 | R | Check the IOS status to see if both PANTOS are NOT isolated. |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10055 | I | End of Test                                                  |  | OK |  | Mlungisi Madela - 529927 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



## Section 4 – Energy Distribution 400V AC

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### 4.1 Instructions list

#### 4.1.1 014\_NRG-Energy Distribution 400V AC

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                | File | Result status | Result value | Operator                           | Vehicle |
|-------|------|----------------------------------------------------------------------------|------|---------------|--------------|------------------------------------|---------|
| 10001 | I    | Auxiliary Converters Command=SPP 018                                       |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10002 | I    | Initial Conditions                                                         |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10003 | I    | TCMS should be working on train                                            |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10004 | I    | No high voltage present on catenary                                        |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10005 | I    | Start of Test                                                              |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10006 | A    | Activate the Cab on TC2                                                    |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10007 | A    | Close the battery contactor 18S1                                           |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10008 | I    | Wait for the TCMS to successfully initialize, then do the steps below      |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1__1 = 1.0 |      | OK            | 1            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnectionr1 = 1.0    |      | OK            | 1            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2__1 = 1.0 |      | OK            | 1            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc2batteryconnectionr2 = 1.0    |      | OK            | 1            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10013 | A    | Trip the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment              |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr1__1 = 0.0 |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2__1 = 0.0 |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10016 | R    | Read Defined Variable [TT]                                                 |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |

|       |   |                                                                                   |  |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
|       |   | (MPU1)Li_NRG_Tc2DcDcGateDriveR1___1<br>= 0.0                                      |  |    |   |                                    |       |
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2___1<br>= 0.0        |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10018 | I | Wait for 30s timer in the next step prior to<br>resetting Circuit Breaker CC(ALS) |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10019 | A | Timer 30.0 S                                                                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10020 | A | Reset the Circuit Breaker CC(ALS) on TC2<br>CVS AGATE compartment                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10021 | A | Trip the Circuit Breaker CC(AL) on TC2 CVS<br>AGATE compartment                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1<br>= 1.0        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1<br>= 1.0        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10024 | I | Wait for 30s timer in the next step prior to<br>resetting Circuit Breaker CC(ALS) |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10025 | A | Timer 30.0 S                                                                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10026 | A | Reset the Circuit Breaker CC(AL) on TC2<br>CVS AGATE compartment                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10027 | A | Activate the Cab on TC1                                                           |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10028 | A | Close the battery contactor 18S1                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10029 | I | Wait for the TCMS to successfully initialize,<br>then do the steps below          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1<br>= 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnectionr1 =<br>1.0        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1<br>= 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10033 | R | Read Defined Variable [TT]                                                        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                |  |    |   |                                 |       |
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|       |   | (MPU1)lo_nrg_tc2batteryconnection2 = 1.0                                       |  |    |   |                                 |       |
| 10034 | A | Trip the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 0.0    |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr2___1 = 0.0    |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1___1 = 0.0        |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2___1 = 0.0        |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10039 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10040 | A | Timer 30.0 S                                                                   |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10041 | A | Reset the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                 |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10042 | A | Trip the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                   |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 1.0        |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 1.0        |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10045 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10046 | A | Timer 30.0 S                                                                   |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10047 | A | Reset the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10048 | I | Automatic Train Preparation & Auxiliary Converter Status                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1automaticstart1 = 0.0            |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                                                          |                                                                                   |    |   |                                    |       |
|-------|---|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|------------------------------------|-------|
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr2 = 0.0                                     |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10051 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr1 = 1.0                                                     |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10052 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 1.0                                                     |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10053 | A | Timer 5.0 S                                                                                              |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                                     |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr2 = 0.0                                     |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 1.0                                     |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10057 | R | Lamp 18H1 is ON                                                                                          |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10058 | R | The ACU on TC1 and TC2 are not operational, the ACU appears in Grey colour on the DDU maintenance screen |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 0.0                                  |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 0.0                                  |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 0.0                                  |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 0.0                                  |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1___1 = 1.0                                 |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2___1 = 1.0                                 |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 1.0                                          |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 1.0                                          |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                            |                                                                                   |    |   |                                    |       |
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| 10067 | A | Switch on 3 kV DC on the catenary                                          |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr1 = 1.0            |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr1 = 1.0            |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1<br>= 0.0 |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 =<br>0.0 |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10072 | R | Aux with reduced performance, lamp 18H1<br>is OFF                          |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 0.0       |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10074 | R | Both ACUs are operational                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR1__1<br>= 1.0  |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2__1<br>= 1.0  |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1__1<br>= 1.0  |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2__1<br>= 1.0  |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10079 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr1                           |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10080 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr2                           |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10081 | I | ACU Isolation and Bypass                                                   |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 1.0         |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 1.0         |                                                                                   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                      |  |    |   |                                 |       |
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| 10084 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position                             |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfault2 = 1.0                     |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1acubypassr1__1 = 0.0                      |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2acubypassr1__1 = 1.0                      |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10088 | I | The help contactor closes on M2 car                                                  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10089 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelp1 = 1.0                       |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10090 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10091 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position                               |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10092 | A | Press the button 22S12 to open HSCB                                                  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10093 | R | Button lamp 22S12 is ON                                                              |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10094 | A | Press the button 22S11 to close HSCB                                                 |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10095 | R | Button lamp 22S12 is OFF                                                             |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10096 | R | Both ACUs are operational on DDU Driver's screen                                     |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfault2 = 0.0                     |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)lo_nrg_m2converterhelp1 = 0.0                       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10099 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position on TC2                      |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)lo_nrg_tc1converterfault2 = 1.0                     |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1acubypassr1__1 = 1.0                      |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2acubypassr1__1 = 0.0                      |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10103 | I | The help contactor closes on M2 car                                                  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |

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| 10104 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 1.0                   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10105 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10106 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC2                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10107 | A | Press the button 22S12 to open HSCB                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10108 | A | Press the button 22S11 to close HSCB                                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10109 | R | Both ACUs are operational on DDU Driver's screen                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0                  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 0.0                   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10112 | I | ACU Fault simulation                                                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10113 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC1          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10114 | A | Lamp 18H1 is ON in the alarm module                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10115 | A | Timer 20.0 S                                                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 1.0                   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10117 | A | Close the ACU AGATE circuit breaker                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10118 | A | Timer 30.0 S                                                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10119 | A | Open HSCB                                                                            |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10121 | A | Close HSCB                                                                           |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10122 | R | Lamp 18H1 is OFF in the alarm module                                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10123 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC2          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10124 | A | Lamp 18H1 is ON in the alarm module                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10125 | A | Timer 20.0 S                                                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |



|       |   |                                                                                          |                                                                                   |    |   |                                    |       |
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| 10126 | A | Close the ACU AGATE circuit breaker                                                      |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10127 | A | Timer 30.0 S                                                                             |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10128 | A | Open HSCB                                                                                |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10129 | A | Close HSCB                                                                               |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10130 | I | Verifying Aux Converter Output                                                           |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10131 | A | Put the switch 18S3 (ACU ISOLATION) to ISOLATION position on TC1 and TC2                 |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10132 | I | ACU stops working in TC1 and TC2 car                                                     |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                       |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10134 | R | Lamp 18H1 is ON in the alarm module                                                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10135 | I | This test is performed to verify that the ACUs can supply all the loads without tripping |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10136 | A | Open the circuit breaker 19Q2 on TC1                                                     |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10137 | A | Open the circuit breaker 57Q1 for all HVAC units                                         |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10138 | A | Open the circuit breaker 19Q2 TC2                                                        |                                                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0                         |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0                          |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0                          |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0                          |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0                          |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0                         |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0                        |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                        |                                                                                   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                                                                                                            |                                                                                   |    |   |                                 |       |
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| 10147 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC1 and TC2                                                                                                      |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10148 | I | ACU starts working on TC1 and TC2                                                                                                                                          |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10149 | A | Close the circuit breaker 19Q2 TC1                                                                                                                                         |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10150 | A | Close the circuit breaker 57Q1 for all HVAC units                                                                                                                          |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10151 | I | It is necessary to check on the DDU screen for HVAC status                                                                                                                 |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb400distrib = 1.0                                                                                                              |                                                                                   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10154 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 1.0                                                                                                              |                                                                                   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10158 | A | Close the circuit breaker 19Q2 TC2                                                                                                                                         |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                             |                                                                                   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 1.0                                                                                                             |                                                                                   | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10161 | R | Verify the circuit breaker 18Q2 ACU on TC1 and TC2 have not tripped                                                                                                        |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10162 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr1                                                                                                                              |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10163 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr2                                                                                                                              |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10164 | I | Shore supply 400Vac                                                                                                                                                        |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10165 | I | This test is to verify if the Aux converters are able to start-up successfully under external power supply and also charge the batteries without 3kV DC from the catenary. |                                                                                   | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                                                                          |  |    |   |                                 |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10166 | I | The shore supply used should be limited to 63A at 400Vac, 50Hz, three phase. A neutral on the shore supply is mandatory. |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10167 | A | Press the button 22S12 to open the HSCB                                                                                  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10168 | A | Press switch 21S1 to lower both pantographs                                                                              |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10169 | R | Read Defined Variable [TT] (MPU1)li_pnt_m1pantorisedr1 = 0.0                                                             |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10170 | R | Read Defined Variable [TT] (MPU1)li_pnt_m2pantorisedr2 = 0.0                                                             |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10171 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                          |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10172 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                          |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10173 | A | Connect the shore supply on TC1 ACU                                                                                      |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10174 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1shoresupply__1 = 1.0                                                          |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10175 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r2 = 0.0                                                        |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                          |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc2contactopen400r1__1 = 1.0                                                     |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10178 | A | Press switch 21S1 to raise both pantographs                                                                              |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10179 | A | Close HSCB using the button 22S11                                                                                        |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10180 | I | It is not possible to close HSCB with shore supply connected                                                             |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10181 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbpbr1 = 0.0                                                           |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10182 | A | Remove shore supply from TC1 ACU                                                                                         |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10183 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                          |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10184 | R | Read Defined Variable [TT] (MPU1)li_nrg_tc1contactopen400r2 = 1.0                                                        |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                                                                                                           |  |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0                                                                                   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10187 | A | Connect the shore supply on TC2 ACU                                                                                                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0                                                                                      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0                                                                                        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0                                                                                   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10192 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10193 | I | It is not possible to close HSCB with shore supply connected                                                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 0.0                                                                                         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10195 | A | Remove shore supply from TC2 ACU                                                                                                                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10196 | I | Shore Supply with 3kV present                                                                                                                             |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10197 | I | The system should be able to prevent the 400Vac contactor of the ACU from closing when 3 kV from the catenary is available and shore supply is connected. |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10198 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 1.0                                                                                         |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10202 | A | Connect the shore supply on TC1 ACU                                                                                                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                         |  |    |   |                                    |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10207 | A | Force [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10210 | R | The HSCBs open                                                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10211 | A | Release [TT]<br>(MPU1)li_nrg_tc1shoresupply__1                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10212 | A | Remove shore supply from TC1 ACU                                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10215 | A | Close HSCB using the button 22S11                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10218 | A | Connect the shore supply on TC2 ACU                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                         |  |    |   |                                    |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10223 | A | Force [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10226 | R | The HSCBs open                                                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10227 | A | Release [TT]<br>(MPU1)li_nrg_tc2shoresupply__1                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10228 | A | Remove shore supply from TC2 ACU                                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10231 | A | Close HSCB                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10232 | R | Both ACUs are operational                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10233 | I | ACU reverse mode                                                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10234 | A | Open HSCB                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10235 | R | Verify on the DDU that the HSCB is open on M1 and M2                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10236 | R | Verify on the DDU that all HVACs are only operating in Ventilation mode |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10237 | R | Verify on the DDU that both CVS are operating in reverse mode           |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10238 | R | Verify on the DDU that both MASU are not running                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10239 | A | Switch ON the 3kV DC on the catenary                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10240 | A | Close HSCB using button 22S11                                           |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                            |  |    |   |                                 |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10241 | R | Line voltage indicator shows at least 2.7kV DC                                             |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10242 | R | Verify on the DDU that the HSCB is closed on M1 and M2                                     |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10243 | R | Verify on the DDU that all HVACs are operating under normal condition                      |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10244 | I | Automatic Train De-preparation & Auxiliary Converter status TC2                            |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10245 | A | Press the Automatic start button 20S1 on the Driver's Desk or Virtual button on DDU screen |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10246 | R | Read Defined Variable [TT] (MPU1)li_cab_tc1automaticstartr2 = 0.0                          |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10247 | R | Read Defined Variable [TT] (MPU1)li_cab_tc2automaticstartr1 = 0.0                          |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10248 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 0.0                                        |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10249 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 0.0                                         |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10250 | R | Train is in LV ready                                                                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10251 | I | Automatic train preparation and de-preparation on TC2                                      |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10252 | A | Insert the Driver's master key on TC2 and turn it to ON position                           |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10253 | A | Close the battery contactor 18S1                                                           |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10254 | A | After the TCMS successful initialization, press the automatic start button 20S1            |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10255 | R | Train is prepared in high voltage                                                          |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10256 | A | Press the automatic start button 20S1 to de-prepare the train                              |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10257 | R | Train is in LV ready                                                                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10258 | A | Open the battery contactor 18S1 to shut down the train                                     |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10259 | R | After few seconds, the train is successfully shutdown                                      |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                                                |  |    |   |                                    |       |
|-------|---|------------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10260 | A | Close the battery contactor 18S1                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10261 | A | Wait for the TCMS to successfully initialize                                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10262 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr1___1 = 1.0                           |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr2___1 = 1.0                           |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10265 | A | Release battery contactor 18S1                                                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10266 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1.                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10267 | A | Insert the Driver's master key on TC1 and turn it to ON position                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10268 | A | Close the battery contactor 18S1                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10269 | A | Wait for the TCMS to successfully initialize                                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10270 | R | Train is in LV ready                                                                           |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10271 | A | Open the battery contactor 18S1 to shut down the train                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10272 | A | Close the battery contactor 18S1                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10273 | A | Wait for the TCMS to successfully initialize                                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10274 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr1___1 = 1.0                           |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr2___1 = 1.0                           |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10277 | A | Release battery contactor 18S1                                                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10278 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1.                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10279 | I | End of test                                                                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |





|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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## Section 5 – Computer Network and DDU Screen

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### 5.1 Instructions list

### 5.1.1 025\_NET-Computer Network and DDU Screen

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                           | File | Result status | Result value | Operator                   | Vehicle |
|-------|------|-----------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|----------------------------|---------|
| 10001 | I    | Computer Network and DDU Screen = SPP 025                                                                             |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | TCMS Network Loop                                                                                                     |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | I    | This is a reflectometry test to check the TCMS complete loop                                                          |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | I    | Please save each result on the Fluke using the cable number given per line                                            |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | R    | There is good connection between CRS1-TC1[25A10] port X4 and CRS1-M1[25A10] port X3 TSX T01<br><br>Cable is crossed   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10006 | R    | There is good connection between CRS4-TC1[25A13] port X3 and CRS1-M4[25A10] port X4 TSX T02<br><br>Cable is crossed   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10007 | R    | There is good connection between TRS-TC1[25A15] port ETH3 and TBR-M4[25A14] port ETH0 TSX T03<br><br>Cable is crossed |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10008 | R    | There is good connection between TBR-TC1 [25A14]ETH1 and TBR-M1[25A14]ETH0 TSX T04<br><br>Cable is crossed            |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10009 | R    | There is good connection between TBR-M4[25A14]ETH1 and TBR-M2[25A14]ETH1 TSX T05<br><br>Cable is crossed              |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10010 | R    | There is good connection between CRS2-M4[25A11] port X3 and CRS2-M2[25A11] port X4 TSX T06                            |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |

|       |   |                                                                                                                     |  |    |  |                            |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------|--|----|--|----------------------------|-------|
|       |   | Cable is crossed                                                                                                    |  |    |  |                            |       |
| 10011 | R | There is good connection between CRS2-M1[25A11] port X4 and CRS2-M3[25A11] port X3 TSX T07<br><br>Cable is crossed  |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10012 | R | There is good connection between TBR-M1[25A14]ETH1 and TBR-M3[25A14]ETH1 TSX T08<br><br>Cable is crossed            |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10013 | R | There is good connection between CRS1-M2[25A10] port X3 and CRS1-TC2[25A10] port X4 TSX T09<br><br>Cable is crossed |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10014 | R | There is good connection between TBR-M2[25A14]ETH0 and TBR-TC2[25A14]ETH1 TSX T10<br><br>Cable is crossed           |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10015 | R | There is good connection between CRS1-M3[25A10] port X4 and CRS3-TC2[25A12] port X3 TSX T11<br><br>Cable is crossed |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10016 | R | There is good connection between TBR-M3[25A14]ETH0 and TRS-TC2[25A15]ETH1 TSX T12<br><br>Cable is crossed           |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10017 | I | Pacis Network Loop                                                                                                  |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10018 | R | There is good connection between TRS1-TC1[54A13]ETH7 and CRS1-M4[54A10]port X7 TSX P01<br><br>Cable is crossed      |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10019 | R | There is good connection between CRS1-TC1[54A10]port X7 and CRS2-M1[54A11]port X8 TSX P02<br><br>Cable is crossed   |  | OK |  | Siphesihle Mchunu - 491465 | Train |
| 10020 | R | There is good connection between CRS2-M4[54A11]port X8 and CRS1-M2[54A10]port X7 TSX P03                            |  | OK |  | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                                                                   |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
|       |   | Cable is crossed                                                                                                  |  |    |   |                            |       |
| 10021 | R | There is good connection between CRS1-M1[54A10]port X7 and CRS2-M3[54A11]port X8 TSX P04<br><br>Cable is crossed  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10022 | R | There is good connection between CRS2-M2[54A11]port X8 and CRS1-TC2[54A10]port X7 TSX P05<br><br>Cable is crossed |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10023 | R | There is good connection between CRS1-M3[54A10]port X7 and TRS1-TC2[54A13]ETH7 TSX P06<br><br>Cable is crossed    |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10024 | A | Download the results from the Fluke into a PDF format and upload it below                                         |  | OK |   | Ntobeko Ndlovu - 421595    | Train |
| 10025 | I | MCE Redundancy Test                                                                                               |  | OK |   | Carol Gumede - 425280      | Train |
| 10026 | A | Switch ON the train in TC1 in Normal mode                                                                         |  | OK |   | Carol Gumede - 425280      | Train |
| 10027 | I | MCE in TC1 should be the master MCE to begin the test                                                             |  | OK |   | Carol Gumede - 425280      | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)NET_LocalMcelsMaster = 1.0                                                       |  | OK | 1 | Carol Gumede - 425280      | Train |
| 10029 | R | Read Defined Variable [TT] (MPU2)NET_LocalMcelsMaster = 0.0                                                       |  | OK | 0 | Carol Gumede - 425280      | Train |
| 10030 | A | Open the circuit breaker 40Q1 in TC1                                                                              |  | OK |   | Carol Gumede - 425280      | Train |
| 10031 | I | The MCE in TC2 becomes the master MCE                                                                             |  | OK |   | Carol Gumede - 425280      | Train |
| 10032 | R | Read Defined Variable [TT] (MPU2)NET_LocalMcelsMaster = 1.0                                                       |  | OK | 1 | Carol Gumede - 425280      | Train |
| 10033 | A | Close circuit breaker 40Q1 in TC1                                                                                 |  | OK |   | Carol Gumede - 425280      | Train |
| 10034 | A | Open circuit breaker 40Q1 in TC2                                                                                  |  | OK |   | Carol Gumede - 425280      | Train |
| 10035 | I | The MCE in TC1 becomes the Master                                                                                 |  | OK |   | Carol Gumede - 425280      | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)NET_LocalMcelsMaster = 1.0                                                       |  | OK | 1 | Carol Gumede - 425280      | Train |
| 10037 | A | Close the circuit breaker 40Q1 in TC2                                                                             |  | OK |   | Carol Gumede - 425280      | Train |

|       |   |                                                                |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10040 | A | Go to software version on DDU and select<br>RUN BL.            |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10041 | R | The Train Baseline is : 1.8/10.1/10.2                          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10042 | I | End of Test                                                    |  | OK |   | Carol Gumedé -<br>425280 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



## Section 6 – Main Circuit Breaker Control

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### 6.1 Instructions list

### 6.1.1 022\_HSC-Main Circuit Breaker Control

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                     | File | Result status | Result value | Operator                 | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|--------------------------|---------|
| 10001 | I    | Main Circuit Breaker Control=SPP 022                                                                                                            |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10002 | I    | Initial Conditions                                                                                                                              |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10003 | I    | This test is to verify the correct operation of the main high voltage circuit breaker.                                                          |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10004 | I    | Train in LV ready                                                                                                                               |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10005 | I    | The catenary should be switched OFF                                                                                                             |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10006 | I    | Circuit breaker 34Q1 should be closed in all Propulsion boxes                                                                                   |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10007 | I    | No Fire Detection alarm on the DDU screen                                                                                                       |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10008 | I    | Start Test                                                                                                                                      |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10009 | I    | HSCB control without High Voltage                                                                                                               |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10010 | I    | For this test, the HSCB control will be tested with no high voltage present to prevent degraded mode in the train in case there is wiring error |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10011 | I    | The button 27S5 should not be pressed on both cars                                                                                              |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10012 | A    | Active Cab on TC1                                                                                                                               |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 0.0                                                                                   |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 0.0                                                                                      |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |

|       |   |                                                               |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 0.0    |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 0.0    |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 0.0    |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 0.0  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 0.0  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 0.0  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 0.0  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 1.0    |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 1.0    |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 1.0    |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 1.0    |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0 |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0 |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10031 | A | Press the button 21S1 to raise<br>Pantographs                 |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10032 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1 =<br>1.0           |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10033 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2 =<br>1.0           |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10034 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1 =<br>1.0           |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10035 | A | Force [TT]                                                    |  | OK |   | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                   |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------|--|----|---|--------------------------|-------|
|       |   | (MPU1)Lo_HSC_Tc2HSCBCLOSE_R2 = 1.0                                |  |    |   |                          |       |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc1firedetection = 0.0 |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc2firedetection = 0.0 |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 1.0     |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 1.0     |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 1.0     |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 1.0     |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0        |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0        |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0        |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0        |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0      |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0      |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0      |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0      |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0        |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0        |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0        |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0        |  | OK | 0 | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                                                    |  |    |   |                             |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 0.0                                                      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr2 = 0.0                                                      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10056 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1                                                                       |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10057 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2                                                                       |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10058 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1                                                                       |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10059 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R2                                                                       |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10060 | A | Press the button 21S1 to lower<br>pantographs                                                                      |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10061 | I | Traction Converter Isolation TC1                                                                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10062 | A | Switch ON the 3kV DC on the catenary                                                                               |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10063 | R | Verify on the line display that the catenary<br>voltage is 3kV DC on the line display<br>where the train is parked |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10064 | A | Press the button 21S1 to raise<br>pantographs                                                                      |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10065 | A | Press the button 22S11 to close HSCBs                                                                              |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10066 | R | Button lamp 22S11 is ON                                                                                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 1.0                                                  |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpbr1 = 0.0                                                  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0                                                  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0                                                  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0                                                  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0                                                  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                                 |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10077 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0               |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0                       |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0               |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0                 |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0                 |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10086 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10087 | A | Both HSCBs are closed                                                           |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10088 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10089 | A | Open HSCBs                                                                      |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10090 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10091 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                              |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10092 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0            |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 1.0            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                    |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                    |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                    |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10101 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10102 | A | Both HSCBs are closed                                                        |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10103 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10104 | A | Open HSCBs                                                                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10105 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10106 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10107 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 1.0            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0                    |  | OK | 1 | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                 |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                       |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 1.0                   |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0                   |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10116 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10117 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10118 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10119 | R | All Traction units are in service and<br>operational                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10120 | A | Press the button 22S12 to open the<br>HSCBs                                     |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0                   |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                   |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10123 | A | Press the button 21S1 to lower both<br>pantographs                              |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10124 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                          |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10125 | A | Remove active cab on TC1                                                        |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10126 | I | HSCB Operation with High Voltage                                                |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10127 | A | Active Cab on TC2                                                               |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10128 | A | Press the button 21S1 to raise both<br>pantographs                              |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10129 | R | Both pantographs are raised successfully                                        |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10130 | R | The voltage on the Line Voltage Indicator<br>module is at least 2.7 kV DC       |  | OK |   | Mlungisi Madela -<br>529927 | Train |



|       |   |                                                                         |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10131 | A | Press the button 22S11 to close HSCBs                                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 0.0    |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10146 | I | Traction Converter Isolation TC2                                        |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 0.0       |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpbr1 = 1.0       |  | OK | 1 | Mlungisi Madela - 529927 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0              |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10158 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2 |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0              |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0        |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0        |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10165 | A | Press the button 22S11 to close HSCB                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10166 | A | Both HSCBs are closed                                                  |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10167 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position |  | OK |   | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                              |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10168 | A | Open HSCBs                                                                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10169 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10170 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10171 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0            |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                    |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                    |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                    |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10180 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10181 | A | Both HSCBs are closed                                                        |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10182 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10183 | A | Open HSCBs                                                                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10184 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10185 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10186 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0            |  | OK | 1 | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                 |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0               |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0                       |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                       |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10195 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10196 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10197 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10198 | R | All Traction units are in service and<br>operational                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10199 | I | End of test                                                                     |  | OK |   | Mlungisi Madela -<br>529927 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 7 – Cabin Control

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### 7.1 Instructions list

### 7.1.1 020\_CAB-Cabin Control

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                  | File | Result status | Result value | Operator                          | Vehicle |
|-------|------|------------------------------------------------------------------------------|------|---------------|--------------|-----------------------------------|---------|
| 10001 | I    | Cabin Control SPP=020                                                        |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10002 | I    | Initial Condition                                                            |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10003 | I    | Backup switch should be in Normal Position                                   |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10004 | I    | Train should be OFF                                                          |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10005 | I    | Start Test                                                                   |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10006 | I    | Cab Active TC1                                                               |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10007 | A    | Insert Driver's Master key and turn it to ON position                        |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10008 | A    | Close the battery contactor 18S1                                             |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10009 | R    | Train successfully start up in normal mode                                   |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10010 | A    | Put the direction selector switch to FORWARD position                        |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10011 | A    | Try to put the Driver's master key in OFF position or remove it from the cab |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10012 | R    | It is not possible to remove or turn the Driver's master key                 |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10013 | A    | Put the direction selector switch to NEUTRAL position                        |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0            |      | OK            | 1            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10015 | A    | Turn key to non-active cab                                                   |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10016 | A    | Open and close circuit breaker 20Q2                                          |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0             |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0             |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |

|       |   |                                                                            |  |    |   |                                   |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-----------------------------------|-------|
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0             |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 1.0             |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0             |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 1.0          |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 0.0          |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 1.0          |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 1.0          |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 1.0          |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 1.0             |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 1.0             |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0 |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 1.0 |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10031 | A | Active cab on TC1                                                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0          |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 1.0           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0           |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 0.0             |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 0.0             |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |



|       |   |                                                                                                                      |  |    |   |                                   |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------------|-------|
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 0.0                                                       |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 0.0                                                       |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 0.0                                                    |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 1.0                                                    |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 0.0                                                    |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 0.0                                                    |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 0.0                                                    |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0                                           |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 0.0                                           |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10046 | I | Train Preparation with Automatic Start<br>button TC1                                                                 |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0                                                 |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10048 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10049 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10050 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10051 | R | Button lamp 20S1 will flash during train<br>preparation and then light steady after<br>preparation process is finish |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                                                 |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10053 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                                               |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10054 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                                                |  | OK | 2 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                        |  |    |   |                                    |       |
|-------|---|----------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10055 | I | Train De-preparation with Automatic Start button TC1                                   |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649  | Train |
| 10056 | A | Press the automatic start button 20S1                                                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649  | Train |
| 10057 | A | Timer 5.0 S                                                                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649  | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0                   |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649  | Train |
| 10059 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                 |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649  | Train |
| 10060 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                  |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649  | Train |
| 10061 | A | Remove active cab on TC1                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10062 | I | Standby mode TC1                                                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10063 | A | Active cab on TC1                                                                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10064 | A | Press the automatic start button 20S1                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10065 | A | Remove active Cab on TC1                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10066 | A | Manually isolate EB on M4 using the<br>pneumatic cock C2.3/1                           |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10067 | A | Press the standby mode button 20S2 and<br>maintain it                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10068 | A | Manually isolate EB on TC1 using the<br>pneumatic cock C1.3/1                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10069 | R | The pantograph lower and both HSCB<br>open, then the train shuts down<br>automatically |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10070 | A | Normalize the cock on M4                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10071 | A | Normalize the cock on TC1                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10072 | A | Cab Active TC2                                                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10073 | A | Insert Driver's Master Key and turn it to<br>ON position                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10074 | A | Put the direction selector switch to<br>FORWARD position                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10075 | A | Try to put the Driver's master key in OFF<br>position or remove it from the cab        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                         |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10076 | R | It is not possible to remove or turn the Driver's master key            |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10077 | A | Put the direction selector switch to NEUTRAL position                   |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10078 | A | Turn key to non-active cab                                              |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10079 | A | Open and close the circuit breaker 20Q2                                 |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0        |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0        |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr2__1 = 1.0       |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr1__1 = 1.0       |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 1.0          |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr3 = 1.0          |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 1.0       |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 0.0       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 1.0       |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 1.0       |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR5 = 1.0       |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1 = 1.0 |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1 = 1.0 |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10094 | R | Read Defined Variable [TT]                                              |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                         |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
|       |   | (MPU1)li_cab_tc1othercabinactive__1 = 1.0                               |  |    |   |                                 |       |
| 10095 | A | Active cab on TC2                                                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0        |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 1.0        |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr1__1 = 0.0       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr3 = 0.0          |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr2__1 = 0.0       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 0.0          |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 0.0       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 1.0       |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 0.0       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 0.0       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR5 = 0.0       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0       |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1 = 0.0 |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1 = 1.0 |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10110 | I | Train Preparation with Automatic Start button TC2                       |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr1 = 0.0    |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                                                                      |  |    |   |                                    |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10112 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10113 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10114 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10115 | R | Button lamp 20S1 will flash during train<br>preparation and then light steady after<br>preparation process is finish |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 1.0                                                 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10117 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                                               |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10118 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                                                |  | OK | 2 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10119 | I | Train De-preparation with Automatic Start<br>button TC2                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10120 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 0.0                                                 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10122 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10123 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10124 | I | Double Cabin and cabin change                                                                                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10125 | I | Each cabin must have its own Driver's<br>Master key                                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                                    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10128 | A | Remove active cab on TC2                                                                                             |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10129 | A | Open and close the circuit breaker 20Q2                                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                                         |  |    |   |                                    |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10132 | A | Activate the cab on TC2                                                                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10133 | A | Active cab on TC1                                                                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10134 | R | IOS 064 appears on the Driver's event list<br>to notify the driver a second key has been<br>inserted    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                       |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10137 | A | Remove active cab on TC2                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10139 | R | IOS 064 disappears on the Driver's event<br>list to notify the driver a second key has<br>been inserted |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10140 | A | Remove active cab from TC1                                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0                                       |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10143 | I | Standby mode TC2                                                                                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10144 | A | Active cab on TC2                                                                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10145 | A | Press the automatic start button 20S1                                                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10146 | A | Remove active Cab on TC2                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10147 | A | Manually isolate EB on M3 using the<br>pneumatic cock C2.3/1                                            |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10148 | A | Press the standby mode button 20S2 and<br>maintain it                                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10149 | A | Manually isolate EB on TC2 using the<br>pneumatic cock C1.3/1                                           |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10150 | R | The pantograph lower and both HSCB<br>open, then the train shuts down                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                           |  |    |  |                                    |       |
|-------|---|---------------------------|--|----|--|------------------------------------|-------|
|       |   | automatically             |  |    |  |                                    |       |
| 10151 | A | Normalize the cock on M3  |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10152 | A | Normalize the cock on TC2 |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10153 | I | End of Test               |  | OK |  | Goitsemodimo<br>Kgatitswe - 526511 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



## Section 8 – Internal Lighting

### 8.1 Instructions list

#### 8.1.1 052\_LGT-Internal Lighting

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                        | File | Result status | Result value | Operator                  | Vehicle |
|-------|------|----------------------------------------------------------------------------------------------------|------|---------------|--------------|---------------------------|---------|
| 10001 | I    | Internal Lighting = SPP 052                                                                        |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10003 | I    | Train should be off                                                                                |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10004 | I    | Main lighting                                                                                      |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                         |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10006 | I    | Main lighting is 100% brightness                                                                   |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10007 | R    | Main lighting is (ON) on TC1, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10008 | R    | Main lighting is (ON) on M4, verify the left and right LEDs are ON in each row in 100% brightness. |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10009 | R    | Main lighting is (ON) on M1, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10010 | R    | Main lighting is (ON) on M2, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10011 | R    | Main lighting is (ON) on M3, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10012 | R    | Main lighting is (ON) on TC2, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Mphato Mphahlele - 480716 | Train   |

|       |   |                                                                       |  |    |  |                           |       |
|-------|---|-----------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10013 | A | Force [TT] (MPU1)lo_lgt_tc1mainlgtcmd = 0.0                           |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10014 | A | Force [TT] (MPU1)lo_lgt_tc2mainlgtcmd = 0.0                           |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10015 | R | Emergency lighting is (ON) on TC2, brightness has been reduced to low |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10016 | R | Emergency lighting is (ON) on M3, brightness has been reduced to low  |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10017 | R | Emergency lighting is (ON) on M2, brightness has been reduced to low  |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10018 | R | Emergency lighting is (ON) on M1, brightness has been reduced to low  |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10019 | R | Emergency lighting is (ON) on M4, brightness has been reduced to low  |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10020 | R | Emergency lighting is (ON) on TC1, brightness has been reduced to low |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10021 | A | Release [TT] (MPU1)lo_lgt_tc1mainlgtcmd                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10022 | A | Release [TT] (MPU1)lo_lgt_tc2mainlgtcmd                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10023 | I | End of Test                                                           |  | OK |  | Mphato Mphahlele - 480716 | Train |

## Section 9 – Pantograph

---

### 9.1 Instructions list

### 9.1.1 021\_PNT-Pantograph

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                            | File | Result status | Result value | Operator                        | Vehicle |
|-------|------|----------------------------------------------------------------------------------------|------|---------------|--------------|---------------------------------|---------|
| 10001 | I    | Pantograph = SPP 021                                                                   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10002 | I    | Initial Conditions                                                                     |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10003 | I    | Main pipe should be 10bar                                                              |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10004 | I    | HSCB is open on M1 and M2 and both pantographs are low                                 |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10005 | I    | Auxiliary Compressor test must be completed in car level prior to performing this test |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10006 | I    | Mechanical pantograph test must be completed prior to performing this test             |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10007 | I    | EARTHING SWITCH T1 is in NORMAL Position on M1                                         |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10008 | I    | EARTHING SWITCH T1 is in NORMAL Position on M2                                         |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10009 | I    | HVB1 valve is in NORMAL position on M1                                                 |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10010 | I    | HVB1 valve is in NORMAL position on M2                                                 |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10011 | I    | Start of Test                                                                          |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10012 | A    | Active Cab on TC1                                                                      |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10013 | I    | Main Tank pressure switch                                                              |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10014 | I    | Make sure the HSCB is open                                                             |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10015 | A    | Empty the main pipe using the cock F2.1/1                                              |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10016 | A    | Connect a manometer on valve K2.8 in M1 and measure the pressure                       |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10017 | A    | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M1              |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10018 | I    | The sensor of the pantograph reservoir should switch when the pressure reaches         |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |

|       |   |                                                                                                                                 |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
|       |   | 5.5 bar(+/- 10%)                                                                                                                |  |    |   |                                 |       |
| 10019 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10020 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10021 | A | Connect a manometer on valve K2.8 in M2 and measure the pressure                                                                |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10022 | A | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M2 car                                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10023 | I | The sensor of the pantograph reservoir should switch when the pressure reaches 5.5 bar(+/- 10%)                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10024 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10025 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10026 | A | Normalize the main pipe                                                                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10027 | A | Close the HSCB                                                                                                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10028 | A | Remove the manometer                                                                                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10029 | A | Insert the nozzle of the manometer on M2 without the manometer connected, to drain the air when the auxiliary compressor starts |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10030 | A | Close the circuit breaker 21Q1 in M2                                                                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10031 | R | Auxiliary compressor starts working                                                                                             |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr1 = 0.0                                                          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr2 = 0.0                                                          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr1 = 1.0                                                          |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr2 = 1.0                                                          |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                  |  |    |  |                                 |       |
|-------|---|--------------------------------------------------|--|----|--|---------------------------------|-------|
| 10036 | A | Remove the manometer nozzle on M2                |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10037 | A | Put HVB1 valve in NORMAL position on M2          |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10038 | A | Put the earthing switch in NORMAL position on M2 |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10039 | A | Put HVB1 valve in NORMAL position on M1          |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10040 | A | Put the earthing switch in NORMAL position on M1 |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10041 | I | End of Test                                      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 10 – Air Production

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### 10.1 Instructions list



### 10.1.1 019\_AIR-Air Production

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                      | File | Result status | Result value | Operator                 | Vehicle |
|-------|------|----------------------------------------------------------------------------------|------|---------------|--------------|--------------------------|---------|
| 10001 | I    | Air Production = SPP 019                                                         |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10002 | I    | Initial Conditions                                                               |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10003 | A    | Put the train in LV ready (No High Voltage/No Shore Supply) on TC1 as active cab |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10004 | A    | Drain the air on TC1 main pipe using the cock F2.1/1                             |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10005 | R    | The pressure gauge of the main pipe is 0 bar                                     |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10006 | A    | Normalise the cock                                                               |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10007 | I    | Start of Test                                                                    |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0               |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                 |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10010 | A    | Open circuit breaker 19Q3 on TC1                                                 |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 0.0                    |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10012 | A    | Close circuit breaker 19Q3                                                       |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                    |      | OK            | 1            | Mlungisi Madela - 529927 | Train   |
| 10014 | A    | Open circuit breaker 19Q3 on TC2                                                 |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 0.0                    |      | OK            | 0            | Mlungisi Madela - 529927 | Train   |
| 10016 | A    | Close circuit breaker 19Q3 on TC2                                                |      | OK            |              | Mlungisi Madela - 529927 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0                    |      | OK            | 1            | Mlungisi Madela - 529927 | Train   |

|       |   |                                                                                                      |    |   |                             |       |
|-------|---|------------------------------------------------------------------------------------------------------|----|---|-----------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                     | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                   | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10020 | I | Main Compressor operation                                                                            | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10021 | A | Press the automatic start button 20S1                                                                | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10022 | I | Both main air compressors start up                                                                   | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                                     | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 1.0                                     | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                                     | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                                     | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0                                   | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                   | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10029 | I | It is necessary to check main pipe pressure<br>on the pneumatic gauge of TC1 and TC2<br>individually | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10030 | A | Wait for 10 minutes, then read the<br>variables below                                                | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                     | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                     | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                     | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                     | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0                                   | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                   | OK | 0 | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                                                         |  |    |   |                          |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10037 | A | Force [TT] NET_TrainTimeEvenDay = 1.0                                                                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10038 | A | Drain the air in the main pipe from TC1 side using cock F2.1/1 until the pressure reaches below 8.5 bar |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler2 = 1.0                                           |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler1 = 0.0                                           |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10041 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10042 | A | Force [TT] NET_TrainTimeEvenDay = 0.0                                                                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10043 | A | Drain the air in the main pipe from TC1 side using cock F2.1/1 until the pressure reaches below 8.5 bar |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler1 = 0.0                                           |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler2 = 1.0                                           |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10046 | I | Compressor Manual Isolation TC1                                                                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10047 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops                                    |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10048 | A | Put the pneumatic switch 19S1 to ISOLATION position                                                     |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 1.0                                            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr2 = 1.0                                            |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyok = 1.0                                              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplydelay = 0.0                                           |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10053 | A | Put the pneumatic switch 19S1 to NORMAL position                                                        |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 0.0                                            |  | OK | 0 | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                                                                                                           |                                                                                   |    |        |                              |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--------|------------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr2 = 0.0                                                                                                           |                                                                                   | OK | 0      | Mlungisi Madela -<br>529927  | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                                                                                                          |                                                                                   | OK | 0      | Mlungisi Madela -<br>529927  | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                   | OK | 1      | Mlungisi Madela -<br>529927  | Train |
| 10058 | R |                                                                                                                                                                           |                                                                                   | OK | 992.82 | Mphato Mphahlele -<br>480716 | Train |
| 10059 | I | Compressor stops when it reaches 10 bar                                                                                                                                   |                                                                                   | OK |        | Mphato Mphahlele -<br>480716 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                   | OK | 1      | Mlungisi Madela -<br>529927  | Train |
| 10061 | R | Verify that the pressure gauge indicates<br>the correct pressure values, according to<br>the DDU<br>BC: Brake cylinder(yellow indicator)<br>MRP: Main Pipe(Red indicator) |  | OK |        | Nokuzola Mdluli -<br>491469  | Train |
| 10062 | I | Compressor Remote Isolation TC1                                                                                                                                           |                                                                                   | OK |        | Mlungisi Madela -<br>529927  | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                                                                                          |                                                                                   | OK | 0      | Mlungisi Madela -<br>529927  | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                         |                                                                                   | OK | 1      | Mlungisi Madela -<br>529927  | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0                                                                                                              |                                                                                   | OK | 1      | Mlungisi Madela -<br>529927  | Train |
| 10066 | I | It is important to make sure the main pipe<br>pressure is always below 10 bar for the<br>purpose of this test                                                             |                                                                                   | OK |        | Mlungisi Madela -<br>529927  | Train |
| 10067 | A | Release the air in the main pipe until it<br>reaches below 8.5 bar                                                                                                        |                                                                                   | OK |        | Mlungisi Madela -<br>529927  | Train |
| 10068 | A | Open circuit breaker 19Q3                                                                                                                                                 |                                                                                   | OK |        | Mlungisi Madela -<br>529927  | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0                                                                                                        |                                                                                   | OK | 1      | Mlungisi Madela -<br>529927  | Train |
| 10070 | A | Press the button 19S2 and hold                                                                                                                                            |                                                                                   | OK |        | Mlungisi Madela -<br>529927  | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0                                                                                                              |                                                                                   | OK | 0      | Mlungisi Madela -<br>529927  | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                         |                                                                                   | OK | 1      | Mlungisi Madela -<br>529927  | Train |

|       |   |                                                                    |  |    |   |                             |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10074 | A | Release the button 19S2                                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10078 | A | Open circuit breaker 19Q2 in the LVB                               |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0  |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10080 | A | Press and hold the button 19S2                                     |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10082 | A | Release the button 19S2                                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1remotecb = 0.0       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10084 | A | Close circuit breaker 19Q3                                         |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10085 | A | Press 19S2 and RELEASE in less than a<br>second                    |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10089 | I | Compressor Manual Isolation TC2                                    |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10090 | A | Put the pneumatic switch 19S1 to<br>ISOLATION position             |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 1.0    |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 1.0    |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                    |  |    |         |                              |       |
|-------|---|--------------------------------------------------------------------|--|----|---------|------------------------------|-------|
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0 |  | OK | 0       | Mlungisi Madela -<br>529927  | Train |
| 10094 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                   |  | OK |         | Mlungisi Madela -<br>529927  | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 |  | OK | 0       | Mlungisi Madela -<br>529927  | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1       | Mlungisi Madela -<br>529927  | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0       | Mlungisi Madela -<br>529927  | Train |
| 10098 | A | Put the pneumatic switch 19S1 to<br>NORMAL position                |  | OK |         | Mlungisi Madela -<br>529927  | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 0.0    |  | OK | 0       | Mlungisi Madela -<br>529927  | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 0.0    |  | OK | 0       | Mlungisi Madela -<br>529927  | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0 |  | OK | 1       | Mlungisi Madela -<br>529927  | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0       | Mlungisi Madela -<br>529927  | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1       | Mlungisi Madela -<br>529927  | Train |
| 10104 | I | Compressor stops when it reaches 10 bar                            |  | OK |         | Mlungisi Madela -<br>529927  | Train |
| 10105 | R |                                                                    |  | OK | 1005.46 | Mphato Mphahlele -<br>480716 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 |  | OK | 0       | Mlungisi Madela -<br>529927  | Train |
| 10107 | A | Remove active cab on TC1                                           |  | OK |         | Mlungisi Madela -<br>529927  | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1       | Mlungisi Madela -<br>529927  | Train |
| 10109 | A | Active cab on TC2                                                  |  | OK |         | Mlungisi Madela -<br>529927  | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0       | Mlungisi Madela -<br>529927  | Train |
| 10111 | I | Compressor Remote Isolation TC2                                    |  | OK |         | Mlungisi Madela -<br>529927  | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0  |  | OK | 1       | Mlungisi Madela -<br>529927  | Train |

|       |   |                                                                                                         |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                            |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10114 | I | It is important to make sure the main pipe pressure is always below 10 bar for the purpose of this test |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10115 | A | Release the air in the main pipe until it reaches below 8.5 bar                                         |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10117 | A | Open circuit breaker 19Q3                                                                               |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10118 | A | Press and hold the button 19S2                                                                          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                            |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10121 | A | Release the button 19S2                                                                                 |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                            |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10124 | A | Open circuit breaker 19Q2 in LVB                                                                        |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                                       |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10126 | A | Press and hold the button 19S2                                                                          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                            |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10128 | A | Release the button 19S2                                                                                 |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10129 | A | Close circuit breaker 19Q3                                                                              |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2remotecb = 0.0                                            |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10131 | A | Press 19S2 and RELEASE in less than a second                                                            |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                                                                                                       |  |    |        |                             |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--------|-----------------------------|-------|
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                                                                    |  | OK | 1      | Mlungisi Madela -<br>529927 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                                                                          |  | OK | 1      | Mlungisi Madela -<br>529927 | Train |
| 10135 | I | Air tightness of Main pipe and other<br>pneumatic systems on train                                                                                    |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10136 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                                                                                      |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10137 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                                                                                      |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10138 | A | Empty the main pipe pressure using<br>draining cock A5/1 until it reaches below<br>7.5 bar                                                            |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10139 | I | Put both compressors in service by closing<br>circuit breaker 19Q2 and also ensure<br>isolation switch 19S1 is in NORMAL<br>position on both TC cars  |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                                                                          |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                                                                          |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10142 | I | Only one compressor starts when the<br>pressure reaches below 8.5 bar. At 10bar<br>+/- 0.2 bar the compressor stops.                                  |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10143 | I | After 10 minutes, the air in the main pipe<br>should not be less than 9.3 bar                                                                         |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10144 | R | Read Undefined Variable [TT]<br>(MPU1)air_bcu1mrpres                                                                                                  |  | OK | 964.37 | Mlungisi Madela -<br>529927 | Train |
| 10145 | I | Air tightness of main reservoirs and<br>associated devices combined with other<br>pneumatic equipment's                                               |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10146 | A | Isolate the Service and Emergency Brake<br>circuit of each car by turning the isolation<br>cocks C1.3/1 and C.2.3/1 towards the<br>isolation position |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10147 | A | Reset the air in the main pipe to 10 bar+/-<br>0.2 bar                                                                                                |  | OK |        | Mlungisi Madela -<br>529927 | Train |
| 10148 | I | If necessary drain the air in the main pipe<br>until at least one compressor starts to<br>reset the pressure to 10 bar                                |  | OK |        | Mlungisi Madela -<br>529927 | Train |



|       |   |                                                                                                                                                                                                      |                                                                                     |    |       |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|-------|--------------------------|-------|
| 10149 | R | Measure the pressure of the main pipe on A1.12 test point and verify that the pressure does not fall by more than 75 kPa (0.75 bar) after 10 minutes, from an initial pressure of 1000 kPa (10 bar). |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |
| 10150 | R |                                                                                                                                                                                                      |                                                                                     | OK | 9.5   | Celiwe Sokhela - 491462  | Train |
| 10151 | A | NORMALISE the isolation cocks C1.3/1 and C2.3/1                                                                                                                                                      |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |
| 10152 | I | Air tightness of brake cylinders and auxiliary reservoirs                                                                                                                                            |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |
| 10153 | R | The pressure on the pneumatic indicator is 10 bar +/- 0.2 bar                                                                                                                                        |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |
| 10154 | A | Select driving direction to FORWARD position                                                                                                                                                         |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |
| 10155 | A | Put Master Controller in 100% Service brake position                                                                                                                                                 |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |
| 10156 | A | Using the manometer, check the SB values in each brake panel, in each car the pressure should not decrease more than 20kPa in over 12 minutes                                                        |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |
| 10157 | R | SB TC1<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                                                      |                                                                                     | OK | 141.3 | Mlungisi Madela - 529927 | Train |
| 10158 | R | SB M4<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                                                       |                                                                                     | OK | 139.5 | Mlungisi Madela - 529927 | Train |
| 10159 | R | SB M1<br>Result Min/Max : 137<= x <= 177 (kPa)                                                                                                                                                       |                                                                                     | OK | 143.3 | Mlungisi Madela - 529927 | Train |
| 10160 | R | SB M2<br>Result Min/Max : 137<= x <= 176 (kPa)                                                                                                                                                       |                                                                                     | OK | 141.3 | Mlungisi Madela - 529927 | Train |
| 10161 | R | SB M3<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                                                       |                                                                                     | OK | 142.5 | Mlungisi Madela - 529927 | Train |
| 10162 | R | SB TC2<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                                                      |                                                                                     | OK | 141.2 | Mlungisi Madela - 529927 | Train |
| 10163 | R | Verify that the pressure gauge indicates the correct pressure values, according to the DDU<br>BC: Brake cylinder(yellow indicator)<br>MRP: Main Pipe(Red indicator)                                  |  | OK |       | Sqiniseko Xulu - 493646  | Train |
| 10164 | I | Draining Cock for Intercar                                                                                                                                                                           |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |
| 10165 | I | Air in the main pipe should be 10 bar +/- 0.2 bar                                                                                                                                                    |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |
| 10166 | A | This test is to ensure that the draining cocks are fully functional                                                                                                                                  |                                                                                     | OK |       | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                              |  |    |  |                          |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10167 | A | Isolate all the cocks from M3 to M4                                                          |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10168 | A | Drain the air on TC1 car using the cock F2.1/1                                               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10169 | A | Drain the air on M4 car using the cock F2.1/1                                                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10170 | A | Drain the air on M1 car using the cock F2.1/1                                                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10171 | A | Drain the air on M2 car using the cock F2.1/1                                                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10172 | A | Drain the air on M3 car using the cock F2.1/1                                                |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10173 | A | Drain the air on TC2 car using the cock F2.1/1                                               |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10174 | A | Normalise all the cocks                                                                      |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10175 | A | Use the tool on the top right corner to add the manometer used for this test (serial number) |  | OK |  | Mlungisi Madela - 529927 | Train |
| 10176 | I | End of Test                                                                                  |  | OK |  | Mlungisi Madela - 529927 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 11 – Monitoring Circuit Breakers

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### 11.1 Instructions list

### 11.1.1 080\_MCB-Monitoring Circuit Breakers

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                      | File | Result status | Result value | Operator                           | Vehicle |
|-------|------|------------------------------------------------------------------|------|---------------|--------------|------------------------------------|---------|
| 10001 | I    | Monitoring Circuit Breakers SPP=080                              |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10002 | I    | TC1                                                              |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10003 | A    | Open the circuit breaker 15Q4                                    |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10004 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 0.0 |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10005 | A    | Close the circuit breaker 15Q4                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 1.0 |      | OK            | 1            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10007 | A    | Open the circuit breaker 13Q1                                    |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 0.0 |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10009 | A    | Close the circuit breaker 13Q1                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 1.0 |      | OK            | 1            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10011 | A    | Open the circuit breaker 57Q1                                    |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0 |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10013 | A    | Close the circuit breaker 57Q1                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 1.0 |      | OK            | 1            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10015 | A    | Open the circuit breaker 72Q1                                    |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 0.0     |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10017 | A    | Close the circuit breaker 72Q1                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 1.0     |      | OK            | 1            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10019 | A    | Open the circuit breaker 40Q4                                    |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |

|       |   |                                                                   |  |    |   |                                    |       |
|-------|---|-------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 0.0       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10021 | A | Close the circuit breaker 40Q4                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 1.0       |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10023 | A | Open the circuit breaker 50Q7                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 0.0       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10025 | A | Close the circuit breaker 50Q7                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 1.0       |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10027 | A | Open the circuit breaker 22Q1                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10029 | A | Close the circuit breaker 22Q1                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10031 | A | Open the circuit breaker 44Q1                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10034 | A | Close the circuit breaker 44Q1                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10037 | A | Open the circuit breaker 72Q2                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 0.0     |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10039 | A | Close the circuit breaker 72Q2                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 1.0     |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                    |  |    |   |                                    |       |
|-------|---|--------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10041 | A | Open the circuit breaker 25Q11                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU2)Li_DDK_Tc1CbTcms1R2 = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10043 | A | Close the circuit breaker 25Q11                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10044 | A | Open the circuit breaker 25Q13                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10046 | A | Close the circuit breaker 25Q13                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r2 = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10049 | A | Open the circuit breaker 25Q10                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10052 | A | Close the circuit breaker 25Q10                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10055 | A | Open the circuit breaker 75Q1                                      |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10058 | A | Close the circuit breaker 75Q1                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10061 | I | M4                                                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                 |  |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10062 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10064 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10066 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10068 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10070 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10072 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10074 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10076 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10078 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10080 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10082 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |



|       |   |                                                                  |  |    |   |                                    |       |
|-------|---|------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10085 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 1.0        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10087 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 0.0    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10089 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10091 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 0.0        |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10093 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 1.0        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10095 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10098 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10101 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 0.0     |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10103 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                |  |    |   |                                    |       |
|-------|---|----------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10105 | A | Open the circuit breaker 25Q6                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10108 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10111 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10113 | A | Close the circuit breaker 25Q10                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10114 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10116 | A | Close the circuit breaker 25Q14                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10119 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10121 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 1.0  |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10123 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                 |  |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10125 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 1.0  |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10127 | I | M1                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10128 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10130 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10132 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10134 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10136 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10138 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10140 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10142 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10144 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10146 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

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|-------|---|------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 1.0       |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10148 | A | Open the circuit breaker 21Q2                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10150 | A | Close the circuit breaker 21Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10152 | A | Open the circuit breaker 57Q2                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvacc = 0.0       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10154 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvacc = 1.0       |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10156 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 0.0    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10158 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10160 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacc = 0.0        |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10162 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacc = 1.0        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10164 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10167 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

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|-------|---|------------------------------------------------------------------|----|---|------------------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 1.0 | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 1.0 | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10170 | A | Open the circuit breaker 13Q2                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 0.0     | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10172 | A | Close the circuit breaker 13Q2                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 1.0     | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10174 | A | Open the circuit breaker 25Q6                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 0.0     | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 0.0     | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10177 | A | Close the circuit breaker 25Q6                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 1.0     | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 1.0     | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10180 | A | Open the circuit breaker 25Q10                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 0.0     | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10182 | A | Close the circuit breaker 25Q10                                  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10183 | A | Open the circuit breaker 25Q14                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 0.0     | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10185 | A | Close the circuit breaker 25Q14                                  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 1.0     | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 1.0     | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10188 | A | Open the circuit breaker 33Q1                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

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|-------|---|-----------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10190 | A | Close the circuit breaker 33Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10192 | A | Open the circuit breaker 55Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10194 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 1.0  |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10196 | I | M2                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10197 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10199 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10201 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10203 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10205 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10207 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10209 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

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|-------|---|--------------------------------------------------------------|----|---|------------------------------------|-------|
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbake = 0.0    | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10211 | A | Close the circuit breaker 40Q1                               | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbake = 1.0    | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10213 | A | Open the circuit breaker 50Q4                                | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 0.0   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10215 | A | Close the circuit breaker 50Q4                               | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 1.0   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10217 | A | Open the circuit breaker 21Q2                                | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 0.0  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10219 | A | Close the circuit breaker 21Q2                               | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 1.0  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10221 | A | Open the circuit breaker 62Q2                                | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 0.0 | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 0.0 | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10224 | A | Close the circuit breaker 62Q2                               | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 1.0 | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 1.0 | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10227 | A | Open the circuit breaker 57Q2                                | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvacc = 0.0   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10229 | A | Close the circuit breaker 57Q2                               | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvacc = 1.0   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                  |  |    |   |                                    |       |
|-------|---|------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10231 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 0.0    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10233 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10235 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 0.0        |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10237 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 1.0        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10239 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10242 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10245 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 0.0     |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10247 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 1.0     |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10249 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 0.0     |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 0.0     |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |



|       |   |                                                                |  |    |   |                                    |       |
|-------|---|----------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10252 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10255 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10257 | A | Close the circuit breaker 25Q10                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10258 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10260 | A | Close the circuit breaker 25Q14                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10261 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10262 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10263 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10265 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 1.0  |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10267 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10269 | A | Close the circuit breaker 55Q2                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10271 | I | M3                                                             |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10272 | A | Open the circuit breaker 15Q4                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                 |  |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10274 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10276 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10278 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10280 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10282 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10284 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10286 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10288 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10290 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10292 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvacc = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                  |  |    |   |                                    |       |
|-------|---|------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10294 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvac = 1.0        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10296 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 0.0    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10298 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 1.0    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10300 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpacs = 0.0        |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10302 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpacs = 1.0        |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10304 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10307 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10310 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 0.0     |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10312 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 1.0     |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10314 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                |    |   |                                    |       |
|-------|---|----------------------------------------------------------------|----|---|------------------------------------|-------|
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 0.0   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 0.0   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10317 | A | Close the circuit breaker 25Q6                                 | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 1.0   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 1.0   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10320 | A | Open the circuit breaker 25Q10                                 | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 0.0   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10322 | A | Close the circuit breaker 25Q10                                | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10323 | A | Open the circuit breaker 25Q14                                 | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 0.0   | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10325 | A | Close the circuit breaker 25Q14                                | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 1.0   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 1.0   | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10328 | A | Open the circuit breaker 33Q1                                  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 0.0  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10330 | A | Close the circuit breaker 33Q1                                 | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 1.0  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10332 | A | Open the circuit breaker 55Q2                                  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 0.0 | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10334 | A | Close the circuit breaker 55Q2                                 | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 1.0 | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

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|-------|---|------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10336 | I | TC2                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10337 | A | Open the circuit breaker 15Q4                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10339 | A | Close the circuit breaker 15Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10341 | A | Open the circuit breaker 13Q1                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10343 | A | Close the circuit breaker 13Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10345 | A | Open the circuit breaker 57Q1                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10347 | A | Close the circuit breaker 57Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10349 | A | Open the circuit breaker 72Q1                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 0.0     |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10351 | A | Close the circuit breaker 72Q1                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 1.0     |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10353 | A | Open the circuit breaker 40Q4                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 0.0      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10355 | A | Close the circuit breaker 40Q4                                   |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 1.0      |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10357 | A | Open the circuit breaker 50Q7                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

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|-------|---|-------------------------------------------------------------------|----|---|------------------------------------|-------|
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 0.0       | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10359 | A | Close the circuit breaker 50Q7                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 1.0       | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10361 | A | Open the circuit breaker 22Q1                                     | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 0.0      | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10363 | A | Close the circuit breaker 22Q1                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 1.0      | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10365 | A | Open the circuit breaker 44Q1.                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 0.0 | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 0.0 | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10368 | A | Close the circuit breaker 44Q1                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 1.0 | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 1.0 | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10371 | A | Open the circuit breaker 72Q2                                     | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 0.0     | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10373 | A | Close the circuit breaker 72Q2                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 1.0     | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10375 | A | Open the circuit breaker 25Q11                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtms1r1 = 0.0      | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10377 | A | Close the circuit breaker 25Q11                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10378 | A | Open the circuit breaker 25Q15                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                       |  |    |   |                                    |       |
|-------|---|---------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 0.0                         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10380 | A | Close the circuit breaker 25Q15                                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r1 = 1.0                         |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 1.0                         |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10383 | A | Open the circuit breaker 25Q10                                                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 0.0                         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 0.0                         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10386 | A | Close the circuit breaker 25Q10                                                       |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 1.0                         |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 1.0                         |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10389 | A | Open the circuit breaker 75Q1                                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 0.0                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 0.0                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10392 | A | Close the circuit breaker 75Q1                                                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 1.0                    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 1.0                    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10395 | R | On the Driver's event list, check there are<br>no IOS recorded about circuit breakers |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10396 | I | End of Test                                                                           |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



## Section 12 – Air Conditioning

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### 12.1 Instructions list

### 12.1.1 057\_HVAC-SME and TK HVAC

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                                                                                                                     | File                                                                                | Result status | Result value | Operator              | Vehicle |
|-------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|-----------------------|---------|
| 10001 | I    | Air Conditioning SPP=057                                                                                                                                                                                                                                                        |                                                                                     | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10002 | A    | Turn Key 30A1.S1 to Active Cabin Position on TC1                                                                                                                                                                                                                                |                                                                                     | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10003 | I    | Train Prepared in High voltage with active cab on TC1                                                                                                                                                                                                                           |                                                                                     | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10004 | I    | Please note that HVAC has protection against too low and too high temperatures. It is important to note that this is not a fault.                                                                                                                                               |                                                                                     | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10005 | I    | Web portal guide                                                                                                                                                                                                                                                                |                                                                                     | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10006 | I    | Please note that there are two types of HVACs that may be installed in one train. One is TK HVAC and the other is SME HVAC. They both function the same way, but the web portal is different. The below documents are a guide on how to navigate both web portals.              |                                                                                     | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10007 | A    |                                                                                                                                                                                                                                                                                 |  | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10008 | A    |                                                                                                                                                                                                                                                                                 |  | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10009 | I    | Cabin TC1                                                                                                                                                                                                                                                                       |                                                                                     | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10010 | I    | Use the temperature sensor to verify the temperature of the cabin                                                                                                                                                                                                               |                                                                                     | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10011 | A    | Connect the laptop to the HVAC maintenance software using web browser. Enter the following IP address on the web browser 10.136.xxx.27<br>xxx represents the train number<br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super |                                                                                     | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10012 | A    | For SME HVAC go to the status tab, then go to Details-Cabin to view the cabin operations. Note the set temperature and                                                                                                                                                          |  | OK            |              | Sicelo Mtolo - 525130 | Train   |

|       |   |                                                                                                                                       |  |    |  |                       |       |
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|       |   | the fan speed<br>For TK HVAC go to Overview then Forced and scroll down to 'CAB forced' to view the cabin operations.                 |  |    |  |                       |       |
| 10013 | I | Check the Steps below and compare with Maintenance software                                                                           |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10014 | A | Select the switch 57S1 to Low Speed Ventilation                                                                                       |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10015 | R | On the maintenance screen the Cab Fan Speed Low Input is showing as ACTIVE whilst the Cab Fan Speed High Input is showing as INACTIVE |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10016 | A | Select the switch '57S2' to position 0                                                                                                |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10017 | R | Temperature is set to 18°C                                                                                                            |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10018 | A | Select the switch '57S2' to position 1                                                                                                |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10019 | R | Temperature is set to 20°C                                                                                                            |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10020 | A | Select the switch '57S2' to position 2                                                                                                |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10021 | R | Temperature is set to 22°C                                                                                                            |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10022 | A | Select the switch '57S2' to position 3                                                                                                |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10023 | R | Temperature is set to 24°C                                                                                                            |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10024 | A | Select the switch '57S2' to position 4                                                                                                |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10025 | R | Temperature is set to 26°C                                                                                                            |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10026 | A | Now select the switch '57S1' to High Ventilation                                                                                      |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10027 | R | On the maintenance screen the Cab Fan Speed High Input is showing as ACTIVE whilst the Cab Fan Speed Low Input is showing as INACTIVE |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10028 | A | Select the switch '57S2' to position 0                                                                                                |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10029 | R | Temperature is set to 18°C                                                                                                            |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10030 | A | Select the switch '57S2' to position 1                                                                                                |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10031 | R | Temperature is set to 20°C                                                                                                            |  | OK |  | Sicelo Mtolo - 525130 | Train |

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| 10032 | A | Select the switch '57S2' to position 2                                                                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10033 | R | Temperature is set to 22°C                                                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10034 | A | Select the switch '57S2' to position 3                                                                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10035 | R | Temperature is set to 24°C                                                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10036 | A | Select the switch '57S2' to position 4                                                                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10037 | R | Temperature is set to 26°C                                                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10038 | I | Cabin Footrest Heater Test on TC1                                                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc1footheaterfault__1 = 0.0                                                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10040 | R | Foot Heater is Off                                                                                                     |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10041 | A | Simulate a failure of the heater by opening circuit breaker 57Q2                                                       |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10042 | A | Press the button 57S3                                                                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10043 | R | Foot Heater is Off                                                                                                     |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc1footheaterfault__1 = 1.0                                                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10045 | A | Release '57S3' pushbutton                                                                                              |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10046 | A | Close circuit breaker 57Q2                                                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10047 | A | Press the button 57S3 to activate the foot heater                                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc1footheaterfault__1 = 0.0                                                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10049 | R | Foot Heater is ON                                                                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10050 | I | HVAC Saloon TC1                                                                                                        |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10051 | A | On the maintenance software web-browser, go to alarms tab and clear all the alarms and events for TC1 saloon and cabin |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10052 | A | Launch the HVAC test for TC1 car on the DDU maintenance screen                                                         |  | OK |   | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                                                                                                                                                         |  |    |  |                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10053 | A | On the maintenance software, check that the HVAC mode for TC1 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling     |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10054 | R | After 9 minutes, TC1 saloon HVAC test has passed.                                                                                                                                                       |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10055 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                             |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10056 | I | HVAC Cabin TC1                                                                                                                                                                                          |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10057 | A | Launch the HVAC test for the TC1 Cab                                                                                                                                                                    |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10058 | A | On the maintenance software, check that the HVAC mode for TC1 Cab corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10059 | R | After 9 minutes, the TC1 cabin HVAC test has passed.                                                                                                                                                    |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10060 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                             |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10061 | I | HVAC Saloon M4                                                                                                                                                                                          |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10062 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.32<br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super            |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10063 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M4 car                                                                                                             |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10064 | A | Launch the HVAC test for M4 car on the DDU maintenance screen                                                                                                                                           |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10065 | A | On the maintenance software, check that the HVAC mode for M4 corresponds to the status on the DDU Screen. For every 3                                                                                   |  | OK |  | Sicelo Mtolo - 525130 | Train |

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|       |   | minutes the HVAC mode should change between Ventilation, Heating and Cooling                                                                                                                       |  |    |  |                       |       |
| 10066 | R | After 9 minutes, the M4 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10067 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                        |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10068 | I | HVAC Saloon M1                                                                                                                                                                                     |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10069 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.29<br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super       |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10070 | A | On the maintenance software go to alarms tab clear all the alarms and events for M1 car                                                                                                            |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10071 | A | Launch the HVAC test for M1 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10072 | A | On the maintenance software, check that the HVAC mode for M1 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10073 | R | After 9 minutes, the M1 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10074 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                        |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10075 | I | HVAC Saloon M2                                                                                                                                                                                     |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10076 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.30<br><br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor                      |  | OK |  | Sicelo Mtolo - 525130 | Train |

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|       |   | Password: super                                                                                                                                                                                    |  |    |  |                       |       |
| 10077 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M2 car                                                                                                        |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10078 | A | Launch the HVAC test for M2 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10079 | A | On the maintenance software, check that the HVAC mode for M2 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10080 | R | After 9 minutes, the M2 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10081 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                        |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10082 | I | HVAC Saloon M3                                                                                                                                                                                     |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10083 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.31<br><br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super   |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10084 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M3 car                                                                                                        |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10085 | A | Launch the HVAC test for M3 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10086 | A | On the maintenance software, check that the HVAC mode for M3 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10087 | R | After 9 minutes, the M3 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10088 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded                                                                                   |  | OK |  | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                                                                                                                                                         |  |    |  |                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-----------------------|-------|
|       |   | during testing to help with fault finding.                                                                                                                                                              |  |    |  |                       |       |
| 10089 | I | HVAC Saloon TC2                                                                                                                                                                                         |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10090 | A | On the web-browser open a new tab and Enter the following IP address:<br>10.136.xxx.28<br><br>SME HVAC<br>Login: maint<br>Password: maint<br><br>TK HVAC<br>Login: supervisor<br>Password: super        |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10091 | A | On the maintenance software go to alarms tab and clear all the alarms and events for TC2 car                                                                                                            |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10092 | A | Launch the HVAC test for TC2 car on the DDU maintenance screen                                                                                                                                          |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10093 | A | On the maintenance software, check that the HVAC mode for TC2 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling     |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10094 | R | After 9 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                                   |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10095 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                             |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10096 | I | HVAC Cabin TC2                                                                                                                                                                                          |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10097 | A | Launch the HVAC test for the TC2 Cab                                                                                                                                                                    |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10098 | A | On the maintenance software, check that the HVAC mode for TC2 Cab corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10099 | R | After 9 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                                   |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10100 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded during testing to help with fault finding.                                             |  | OK |  | Sicelo Mtolo - 525130 | Train |



|       |   |                                                                                                                                                                                                                                              |                                                                                   |    |  |                       |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|-----------------------|-------|
| 10101 | A | Turn Key 30A1.S1 to Non-Active Cabin Position on TC1                                                                                                                                                                                         |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10102 | I | Cabin TC2                                                                                                                                                                                                                                    |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10103 | A | Turn Key 30A1.S1 to Active Cabin Position on TC2                                                                                                                                                                                             |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10104 | A | For SME HVAC go to the status tab, then go to Details-Cabin to view the cabin operations. Note the set temperature and the fan speed<br>For TK HVAC go to Overview then Forced and scroll down to 'CAB forced' to view the cabin operations. |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10105 | I | Check the Steps below and compare with Maintenance software                                                                                                                                                                                  |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10106 | A | Select the switch 57S1 to Low Speed Ventilation                                                                                                                                                                                              |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10107 | R | On the maintenance screen the Cab Fan Speed Low Input is showing as ACTIVE whilst the Cab Fan Speed High Input is showing as INACTIVE                                                                                                        |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10108 | A | Select the switch '57S2' to position 0                                                                                                                                                                                                       |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10109 | R | Temperature is set to 18°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10110 | A | Select the switch '57S2' to position 1                                                                                                                                                                                                       |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10111 | R | Temperature is set to 20°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10112 | A | Select the switch '57S2' to position 2                                                                                                                                                                                                       |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10113 | R | Temperature is set to 22°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10114 | A | Select the switch '57S2' to position 3                                                                                                                                                                                                       |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10115 | R | Temperature is set to 24°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10116 | A | Select the switch '57S2' to position 4                                                                                                                                                                                                       |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10117 | R | Temperature is set to 26°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10118 | A | Now select the switch '57S1' to High Ventilation                                                                                                                                                                                             |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |
| 10119 | R | On the maintenance screen the Cab Fan Speed High Input is showing as ACTIVE whilst the Cab Fan Speed Low Input is                                                                                                                            |                                                                                   | OK |  | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
|       |   | showing as INACTIVE                                                    |  |    |   |                       |       |
| 10120 | A | Select the switch '57S2' to position 0                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10121 | R | Temperature is set to 18°C                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10122 | A | Select the switch '57S2' to position 1                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10123 | R | Temperature is set to 20°C                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10124 | A | Select the switch '57S2' to position 2                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10125 | R | Temperature is set to 22°C                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10126 | A | Select the switch '57S2' to position 3                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10127 | R | Temperature is set to 24°C                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10128 | A | Select the switch '57S2' to position 4                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10129 | R | Temperature is set to 26°C                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10130 | I | Cabin Footrest Heater Test on TC2                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault__1 = 0.0 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10132 | R | Foot Heater is switch Off                                              |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10133 | A | Simulate a failure of the heater by opening circuit breaker 57Q2       |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10134 | A | Command '57S3' pushbutton                                              |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault__1 = 1.0 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10136 | R | Foot Heater is switch Off                                              |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10137 | A | Release '57S3' pushbutton                                              |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10138 | A | Close 57Q2                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10139 | A | Command '57S3' pushbutton                                              |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault__1 = 0.0 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10141 | R | Foot Heater is switch ON                                               |  | OK |   | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                                                                                                            |                                                                                     |    |  |                       |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-----------------------|-------|
| 10142 | I | Emergency Ventilation Mode                                                                                                                                 |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10143 | R | All HVACs are working in NORMAL condition                                                                                                                  |    | OK |  | Sicelo Mtolo - 525130 | Train |
| 10144 | A | Switch off the catenary voltage 3kV                                                                                                                        |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10145 | R | Both Auxiliary Converter stop to work                                                                                                                      |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10146 | R | 400 V AC is not present on train                                                                                                                           |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10147 | R | No high voltage power is available on HVAC unit to operate Ventilation and Cooling or Heating.                                                             |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10148 | R | All HVAC units and Cab HVAC units stop                                                                                                                     |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10149 | R | After about 45 seconds without 400V, Auxiliary Converter will generate 400V from Train Batteries with an inverter.                                         |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10150 | R | After this time about (45s) All HVAC units will operate in "Emergency Ventilation"                                                                         |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10151 | A | Switch on the 3kV on the catenary                                                                                                                          |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10152 | R | Now, 400V AC is available by Auxiliary Converter                                                                                                           |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |
| 10153 | R | All HVAC units and Cab HVAC units only operate Ventilation with maximum fresh airflow then change to a specific mode based on the surrounding temperatures |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10154 | I | End of Test                                                                                                                                                |                                                                                     | OK |  | Sicelo Mtolo - 525130 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 13 – Driving Command

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### 13.1 Instructions list

### 13.1.1 030\_DRC-Driving Command

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                     | File | Result status | Result value | Operator              | Vehicle |
|-------|------|-----------------------------------------------------------------|------|---------------|--------------|-----------------------|---------|
| 10001 | I    | Driving command = SPP 30                                        |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10002 | I    | Initial Conditions                                              |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10003 | I    | Train should be prepared with High voltage                      |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10004 | I    | Deadman override switch 60S1 must be in OVERRIDE position       |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10005 | I    | Driving command TC1 side                                        |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10006 | I    | Direction Selector Switch TC1                                   |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10007 | A    | Put the Direction selector switch 30A1.S2 in NEUTRAL position   |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 0.0  |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 0.0 |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |

|       |   |                                                                 |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10018 | A | Put the Direction selector switch 30A1.S2 in FORWARD position   |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0  |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 0.0 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10029 | A | Put the Direction selector switch 30A1.S2 in REVERSE position   |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                              |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0                        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0                        |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0               |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 1.0              |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10040 | I | Reduced Power Test TC1                                                       |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10041 | I | Button Lamp 30S2 is OFF                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10042 | I | Driving mode switch in SPEED CONTROL mode                                    |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10045 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10046 | R | Button Lamp 30S2 is ON                                                       |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0            |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10049 | A | Release the button 30S2 and press it again to de-activate reduced power mode |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10050 | R | Button Lamp 30S2 is OFF                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10053 | A | Put the driving mode switch to EFFORT mode                                   |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10054 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sicelo Mtolo - 525130 | Train |



|       |   |                                                                              |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0            |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10057 | A | Release the button 30S2 and press it again to de-activate reduced power mode |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10060 | I | It not possible to activate reduced power in depot or coupling mode          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10061 | A | Put the driving mode switch to DEPOT mode                                    |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10062 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10065 | A | Release the button 30S2                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10066 | A | Put the driving mode switch to COUPLING mode                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10067 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10070 | A | Release the button 30S2                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10071 | I | Master Controller / No Brake                                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10072 | I | The direction selector switch 30A1.S2 must be in NEUTRAL position            |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10073 | I | The Master controller of Traction/Brake should be on OFF position            |  | OK |   | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                             |  |    |      |                       |       |
|-------|---|-----------------------------------------------------------------------------|--|----|------|-----------------------|-------|
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0        |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10075 | I | The Traction Interlock Override Switch<br>31S1 should be in NORMAL position |  | OK |      | Sicelo Mtolo - 525130 | Train |
| 10076 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10077 | R | LED 31H1 is OFF on the alarm module                                         |  | OK |      | Sicelo Mtolo - 525130 | Train |
| 10078 | R | LED 44H4 is "ON" on the alarm module                                        |  | OK |      | Sicelo Mtolo - 525130 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                       |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                       |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                      |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                      |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                      |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                      |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                       |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                       |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                       |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                       |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10091 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369    |  | OK | 5984 | Sicelo Mtolo - 525130 | Train |
| 10092 | R | Read Min/Max [TT]                                                           |  | OK | 5936 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
|       |   | (MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369                    |  |    |   |                       |       |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 0.0        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 0.0        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnocostr1 = 0.0         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnocostr2 = 0.0         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 = 0.0 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10101 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position       |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                   |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10103 | R | LED 44H4 is OFF on the alarm module                                    |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10104 | R | LED 31H1 is "ON" on the alarm module                                   |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                  |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                  |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                                              |  |    |      |                       |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|------|-----------------------|-------|
| 10111 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                                         |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                                         |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10117 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369                     |  | OK | 5984 | Sicelo Mtolo - 525130 | Train |
| 10118 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369                     |  | OK | 5936 | Sicelo Mtolo - 525130 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 0.0                              |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 0.0                              |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0                                |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0                                |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0                                |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0                                |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0                       |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 = 0.0                       |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10127 | I | For safety purposes ENSURE that NO one is working NEAR, OUTSIDE or on the DOORS of the Train |  | OK |      | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                       |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10128 | A | Press Automatic Start Button to Drop the Pantographs                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10129 | A | Timer 15.0 S                                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0       |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0       |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0       |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0       |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10134 | A | Put the Master controller of Traction/Brake in 100% TRACTION position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                  |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                  |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                            |  |    |       |                       |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|-----------------------|-------|
| 10146 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10147 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30816 | Sicelo Mtolo - 525130 | Train |
| 10148 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30896 | Sicelo Mtolo - 525130 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 1.0            |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 1.0            |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0              |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0              |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 = 0.0     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10157 | A | Put the Master controller of<br>Traction/Brake in OFF position             |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                          |  |    |      |                       |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|-----------------------|-------|
| 10163 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10170 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5984 | Sicelo Mtolo - 525130 | Train |
| 10171 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 5936 | Sicelo Mtolo - 525130 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0          |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0          |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0            |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0            |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0            |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0            |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0   |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10179 | A | Put the direction selector switch in<br>REVERSE position                 |  | OK |      | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                            |  |    |       |                       |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|-----------------------|-------|
| 10180 | A | Put the Master controller of Traction/Brake in 100% BRAKE position         |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10193 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30816 | Sicelo Mtolo - 525130 | Train |
| 10194 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30896 | Sicelo Mtolo - 525130 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mtractionr1 = 0.0            |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mtractionr2 = 0.0            |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |



|       |   |                                                                               |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 = 0.0        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10203 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(BCU1)LI_Traction = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(BCU2)LI_Traction = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(BCU1)LI_noBrake = 0.0                          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(BCU2)LI_noBrake = 0.0                          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                            |  |    |       |                       |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|-----------------------|-------|
| 10215 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10216 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30816 | Sicelo Mtolo - 525130 | Train |
| 10217 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30912 | Sicelo Mtolo - 525130 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 0.0            |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 0.0            |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>1.0  |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>1.0  |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10226 | I | Driving command TC2 side                                                   |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10227 | I | Direction Selector Switch TC2                                              |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10228 | A | Switch active cab to TC2                                                   |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10229 | A | Press 21S1 to raise the Pantographs                                        |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10230 | A | Press 22S11 to close the HSCB                                              |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10231 | A | Put the Direction selector switch 30A1.S2<br>in NEUTRAL position           |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                  |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10233 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10237 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10240 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0            |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0            |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10249 | A | Put the Direction selector switch 30A1.S2<br>in REVERSE position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                                 |  |    |   |                       |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10251 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0                           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0                           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0                           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0                           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0                           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0                           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0                           |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10258 | A | Put Master Controller in OFF position                                           |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10259 | I | Button Lamp 30S2 is OFF                                                         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10260 | I | Reduced Power Test TC2                                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10261 | A | Put the driving mode switch in SPEED<br>CONTROL mode                            |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10262 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 1.0               |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10265 | R | Button Lamp 30S2 is ON                                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10266 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10267 | R | Button Lamp 30S2 is OFF                                                         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 0.0              |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10270 | A | Put the driving mode switch to EFFORT<br>mode                                   |  | OK |   | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                              |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10271 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 1.0            |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10274 | A | Release the button 30S2 and press it again to de-activate reduced power mode |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10276 | I | It not possible to activate reduced power in depot or coupling mode          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10277 | A | Put the driving mode switch to DEPOT mode                                    |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10278 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10281 | A | Release the button 30S2                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10282 | A | Put the driving mode switch to COUPLING mode                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10283 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0           |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0            |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10286 | A | Release the button 30S2                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10287 | I | Master Controller/ No Brake                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10288 | I | The direction selector switch 30A1.S2 must be in NEUTRAL position            |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10289 | I | The Master controller of Traction/Brake should be on OFF position            |  | OK |   | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                          |  |    |      |                       |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|-----------------------|-------|
| 10290 | I | Emergency Brake must be applied                                          |  | OK |      | Sicelo Mtolo - 525130 | Train |
| 10291 | I | All doors should be closed                                               |  | OK |      | Sicelo Mtolo - 525130 | Train |
| 10292 | I | The Traction Interlock Override Switch 31S1 should be in NORMAL position |  | OK |      | Sicelo Mtolo - 525130 | Train |
| 10293 | R | LED 31H1 is OFF on the alarm module                                      |  | OK |      | Sicelo Mtolo - 525130 | Train |
| 10294 | R | LED 44H4 is "ON" on the alarm module                                     |  | OK |      | Sicelo Mtolo - 525130 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                    |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                    |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                   |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                   |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                   |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10307 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5936 | Sicelo Mtolo - 525130 | Train |
| 10308 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 5968 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractio1 = 0.0         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractio2 = 0.0         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10317 | A | Put the Direction selector switch 30A1.S2 in FORWARD position          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10318 | I | No emergency brake is applied                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10319 | R | LED 44H4 is OFF on the alarm module                                    |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10320 | R | LED 31H1 is "ON" on the alarm module                                   |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10321 | R | Relay 31K1 and 31K2 are energized                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(BCU1)LI_Traction = 0.0                  |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(BCU2)LI_Traction = 0.0                  |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10325 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                 |  | OK | 0 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                                              |  |    |      |                       |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|------|-----------------------|-------|
| 10328 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                                         |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                                         |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                                        |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10334 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369                     |  | OK | 5936 | Sicelo Mtolo - 525130 | Train |
| 10335 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369                     |  | OK | 5984 | Sicelo Mtolo - 525130 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractiorr1 = 0.0                             |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractiorr2 = 0.0                             |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0                                |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0                                |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0                                |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0                                |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0                       |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0                       |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10344 | I | For safety purposes ENSURE that NO one is working NEAR, OUTSIDE or on the DOORS of the Train |  | OK |      | Sicelo Mtolo - 525130 | Train |



|       |   |                                                                       |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10345 | A | Press Automatic Start Button to Drop the Pantographs                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10346 | A | Timer 15.0 S                                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0       |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0       |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10349 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0       |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0       |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10351 | A | Put the Master controller of Traction/Brake in 100% TRACTION position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                  |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                  |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10361 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                            |  |    |       |                       |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|-----------------------|-------|
| 10363 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10364 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30832 | Sicelo Mtolo - 525130 | Train |
| 10365 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30912 | Sicelo Mtolo - 525130 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior1 = 1.0            |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior2 = 1.0            |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0              |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0              |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10374 | A | Put the Master controller of<br>Traction/Brake in OFF position             |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(BCU1)LI_Traction = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(BCU2)LI_Traction = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                          |  |    |      |                       |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|-----------------------|-------|
| 10380 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10386 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Sicelo Mtolo - 525130 | Train |
| 10387 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5936 | Sicelo Mtolo - 525130 | Train |
| 10388 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 5968 | Sicelo Mtolo - 525130 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior1 = 0.0          |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior2 = 0.0          |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0            |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0            |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0            |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0            |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0   |  | OK | 0    | Sicelo Mtolo - 525130 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0   |  | OK | 0    | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                            |  |    |       |                       |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|-----------------------|-------|
| 10397 | A | Put the Master controller of Traction/Brake in 100% BRAKE position         |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10398 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10405 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10408 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10409 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10410 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30832 | Sicelo Mtolo - 525130 | Train |
| 10411 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30896 | Sicelo Mtolo - 525130 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior1 = 0.0            |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior2 = 0.0            |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                               |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0                 |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10420 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10424 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                        |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10428 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10429 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10430 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10431 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         |  | OK | 0 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                            |  |    |       |                       |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|-----------------------|-------|
| 10432 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10433 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30848 | Sicelo Mtolo - 525130 | Train |
| 10434 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30896 | Sicelo Mtolo - 525130 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0            |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0            |  | OK | 0     | Sicelo Mtolo - 525130 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10438 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0              |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 1.0     |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 1.0     |  | OK | 1     | Sicelo Mtolo - 525130 | Train |
| 10443 | A | Put the Master controller of<br>Traction/Brake in OFF position             |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10444 | A | Put the direction switch to NEUTRAL<br>position                            |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10445 | A | Close HSCB using button 22S11                                              |  | OK |       | Sicelo Mtolo - 525130 | Train |
| 10446 | I | End of Test                                                                |  | OK |       | Sicelo Mtolo - 525130 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 14 – Holding and Parking Brake

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### 14.1 Instructions list



### 14.1.1 045\_PBK-Holding and Parking Brake

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                              | File | Result status | Result value | Operator                           | Vehicle |
|-------|------|------------------------------------------------------------------------------------------|------|---------------|--------------|------------------------------------|---------|
| 10001 | I    | Parking brake SPP= 045                                                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10002 | I    | Initial Conditions                                                                       |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10003 | I    | Train must be properly scotched with sufficient scotch blocked to prevent it from moving |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10004 | I    | Automatic parking brake application                                                      |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10005 | I    | Train in LV ready with active cab on TC1                                                 |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10006 | A    | Release parking brake using the switch 45S1                                              |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10007 | R    | Verify on the DDU that all cars have parking brake released                              |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10008 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                         |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10009 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                         |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10010 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                         |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10011 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                         |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10012 | A    | Drain the air from the main pipe until it reaches 0bar                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10013 | R    | Main pipe pressure is 0bar on the Pneumatic indicator                                    |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10014 | R    | Verify on the DDU that all cars have parking brake applied                               |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10015 | R    | Lamp 45H2 is "ON" on the alarm module                                                    |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                         |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0                         |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |

|       |   |                                                                  |  |    |   |                                    |       |
|-------|---|------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisolDC = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisolDC = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisolDC = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisolDC = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisolDC = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_RELEASE = 0.0    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                               |  |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10038 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10039 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10040 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10041 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2                                                  |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10042 | A | Press the automatic start button 20S1                                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                              |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                              |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10045 | R | After 10 minutes, the air in the main pipe<br>is 10bar +/-0.2bar                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10046 | A | Turn the switch 45S1 to release parking<br>brake                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10047 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10048 | I | Parking brake is released in all cars                                                         |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10049 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10050 | R | On the Driver's event list, there is no<br>message reporting parking brake release<br>failure |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                              |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 1.0                              |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 1.0                               |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 1.0                               |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                  |  |    |   |                                    |       |
|-------|---|------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10073 | I | Remote parking brake application TC1                             |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                                                     |  |    |       |                                 |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------|--|----|-------|---------------------------------|-------|
| 10074 | A | Turn the switch 45S1 to parking brake release                                                                       |  | OK |       | Goitsemodimo Kgatitswe - 526511 | Train |
| 10075 | R | Lamp 45H2 is OFF on the alarm module                                                                                |  | OK |       | Goitsemodimo Kgatitswe - 526511 | Train |
| 10076 | R | Measure the pressure of the test point C1.11 on TC1, test point must be set to 6 bar<br>Read Undefined Value : x () |  | OK | 6.322 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10077 | R | Measure the pressure of the test point C2.11 on M4, test point must be set to 6 bar<br>Read Undefined Value : x ()  |  | OK | 5.928 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10078 | R | Measure the pressure of the test point C2.11 on M1, test point must be set to 6 bar<br>Read Undefined Value : x ()  |  | OK | 5.965 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10079 | R | Measure the pressure of the test point C2.11 on M2, test point must be set to 6 bar<br>Read Undefined Value : x ()  |  | OK | 6.112 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10080 | R | Measure the pressure of the test point C2.11 on M3, test point must be set to 6 bar<br>Read Undefined Value : x ()  |  | OK | 6.012 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10081 | R | Measure the pressure of the test point C1.11 on TC2, test point must be set to 6 bar<br>Read Undefined Value : x () |  | OK | 5.962 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10082 | A | Turn the switch 45S1 to apply parking brake                                                                         |  | OK |       | Goitsemodimo Kgatitswe - 526511 | Train |
| 10083 | R | Lamp 45H2 is ON on the alarm module                                                                                 |  | OK |       | Goitsemodimo Kgatitswe - 526511 | Train |
| 10084 | R | Measure the pressure of the test point C1.11 on TC1, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)     |  | OK | 1.999 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10085 | R | Measure the pressure of the test point C1.11 on M4, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)      |  | OK | 1.965 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10086 | R | Measure the pressure of the test point C2.11 on M1, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)      |  | OK | 2.231 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10087 | R | Measure the pressure of the test point C2.11 on M2, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)      |  | OK | 2.182 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10088 | R | Measure the pressure of the test point C2.11 on M3, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)      |  | OK | 1.994 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10089 | R | Measure the pressure of the test point C1.11 on TC2, test point must below 4.8                                      |  | OK | 1.973 | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                  |  |    |   |                                    |       |
|-------|---|------------------------------------------------------------------|--|----|---|------------------------------------|-------|
|       |   | bar<br>Result Max : x <= 5 (Bar)                                 |  |    |   |                                    |       |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0   |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsOldC = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0   |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                                                                   |  |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10108 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0                                                                          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                                                          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                                                          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                                                          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10112 | I | Parking brake manual isolation                                                                                                    |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10113 | I | TC1                                                                                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10114 | A | Put the switch C1.3.2 in ISOLATION<br>position on TC1                                                                             |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_RELEASE = 0.0                                                                      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc1parkbrakeisol = 1.0                                                                 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 1.0                                                                    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 1.0                                                                           |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10119 | A | Put the switch C1.3.2 in NORMAL<br>position on TC1                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_RELEASE = 0.0                                                                      |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10121 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working) |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc1parkbrakeisol = 0.0                                                                 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0                                                                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0                                                                           |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10125 | I | M4                                                                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10126 | A | Put the switch C2.3.2 for in ISOLATION<br>position                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                                                                  |  |    |   |                                    |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10127 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_RELEASE = 0.0                                                                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m4parkbrakeisol = 1.0                                                                 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10131 | A | Put the switch C2.3.2 in NORMAL<br>position on M4                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_RELEASE = 0.0                                                                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10133 | R | Verify on the DDU that parking brake is<br>still released                                                                        |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10134 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m4parkbrakeisol = 0.0                                                                 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10138 | I | M1                                                                                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10139 | A | Put the switch C2.3.2 for in ISOLATION<br>position                                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 1.0                                                                 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10143 | A | Put the switch C2.3.2 in NORMAL<br>position on M1                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10144 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |



|       |   |                                                                                                                                  |  |    |   |                                    |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 0.0                                                                 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10148 | I | M2                                                                                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10149 | A | Put the switch C2.3.2 in ISOLATION<br>position on M2                                                                             |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 1.0                                                                 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10153 | A | Put the cock C2.3.2 for in NORMAL<br>position on M2                                                                              |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10154 | A | Pull the parking brake manual lever of<br>both bogies( a click sound must be heard<br>to indicate parking brake lever is working |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 0.0                                                                 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10158 | I | M3                                                                                                                               |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10159 | A | Put the switch C2.3.2 in ISOLATION<br>position on M3                                                                             |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m3parkbrakeisol = 1.0                                                                 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                                                             |  |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10163 | A | Put the cock C2.3.2 for in NORMAL position on M3                                                                            |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10164 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working  |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10165 | R | Read Defined Variable [TT] (MPU1)li_pbk_m3parkbrakeisol = 0.0                                                               |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10166 | R | Read Defined Variable [TT] (MPU1)tbcu3_parkbrakeisoldc = 0.0                                                                |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10167 | I | TC2                                                                                                                         |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10168 | A | Put the switch C1.3.2 in ISOLATION position on TC2                                                                          |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10169 | R | Read Defined Variable [TT] (TBCU3)LI_PARK_BR_DC = 0.0                                                                       |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10170 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakelsolDC = 1.0                                                                 |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10171 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc2parkbrakeisol = 1.0                                                              |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10172 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_DC = 1.0                                                                        |  | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10173 | A | Put the switch C1.3.2 in NORMAL position on TC2                                                                             |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10174 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_RELEASE = 0.0                                                                   |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10175 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working) |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10176 | R | Read Defined Variable [TT] (MPU1)BCU2_ParkBrakelsolDC = 0.0                                                                 |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10177 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc2parkbrakeisol = 0.0                                                              |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10178 | I | Remote parking brake application TC2                                                                                        |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10179 | R | Read Defined Variable [TT] (BCU2)LI_PARK_BR_DC = 0.0                                                                        |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10180 | A | Switch active cab to TC2                                                                                                    |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                                                                          |  |    |       |                                 |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------|--|----|-------|---------------------------------|-------|
| 10181 | A | Turn the switch 45S1 to apply parking brake                                                                              |  | OK |       | Goitsemodimo Kgatitswe - 526511 | Train |
| 10182 | R | Lamp 45H2 is ON on the alarm module                                                                                      |  | OK |       | Goitsemodimo Kgatitswe - 526511 | Train |
| 10183 | R | Measure the pressure of the test point C1.11 on TC1, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar) |  | OK | 2.012 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10184 | R | Measure the pressure of the test point C2.11 on M4, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar)  |  | OK | 1.975 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10185 | R | Measure the pressure of the test point C2.11 on M1, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar)  |  | OK | 2.24  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10186 | R | Measure the pressure of the test point C2.11 on M2, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar)  |  | OK | 2.012 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10187 | R | Measure the pressure of the test point C2.11 on M3, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar)  |  | OK | 1.986 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10188 | R | Measure the pressure of the test point C1.11 on TC2, test point must be set to 4.8 bar<br>Read Undefined Value : x (Bar) |  | OK | 1.978 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                                                         |  | OK | 0     | Goitsemodimo Kgatitswe - 526511 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0                                                         |  | OK | 0     | Goitsemodimo Kgatitswe - 526511 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0                                                          |  | OK | 0     | Goitsemodimo Kgatitswe - 526511 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0                                                          |  | OK | 0     | Goitsemodimo Kgatitswe - 526511 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0                                                         |  | OK | 0     | Goitsemodimo Kgatitswe - 526511 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0                                                         |  | OK | 0     | Goitsemodimo Kgatitswe - 526511 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Goitsemodimo Kgatitswe - 526511 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Goitsemodimo Kgatitswe - 526511 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                                         |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------------------------------|----|---|------------------------------------|-------|
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0                          | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0                          | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisolDC = 0.0                         | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisolDC = 0.0                         | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisolDC = 0.0                          | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisolDC = 0.0                         | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisolDC = 0.0                         | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10205 | A | Turn the switch 45S1 to release parking brake                                           | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10206 | R | Lamp 45H2 is OFF on the alarm module                                                    | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10207 | I | Parking brake is released in all cars                                                   | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10208 | R | On the Driver's event list, there is no message reporting parking brake release failure | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                        | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 1.0                        | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 1.0                         | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 1.0                         | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 1.0                        | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 1.0                        | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 0.0                          | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 0.0                          | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                 |  |    |   |                                    |       |
|-------|---|-----------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsolDC = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisolDC = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisolDC = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisolDC = 0.0  |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisolDC = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisolDC = 0.0 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10225 | I | End of Test                                                     |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 15 – Service Brake

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### 15.1 Instructions list

### 15.1.1 040\_SBK-Service Brake

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                           | File | Result status | Result value | Operator                 | Vehicle |
|-------|------|-----------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|--------------------------|---------|
| 10001 | I    | Service Brake SPP=040 SBK                                                                                             |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10002 | I    | Initial Conditions                                                                                                    |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10003 | I    | Emergency brake button 44S1 is released in both TC1 and TC2                                                           |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10004 | I    | Pressure on the main pipe should be higher than 7 bar                                                                 |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10005 | I    | The ERTMS switch 62S1 is in ISOLATION position in both TC1 and TC2                                                    |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10006 | I    | The Deadman switch 60S1 is in OVERRIDE position in both TC1 and TC2                                                   |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10007 | I    | Driving mode should be selected as COUPLE/WASH in both TC1 and TC2                                                    |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10008 | I    | Train has sufficient scotch blocks to prevent it from moving                                                          |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10009 | I    | Ensure that the propulsion system is inhibited to prevent movement when the master controller is in TRACTION position |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10010 | I    | Start of Test                                                                                                         |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10011 | I    | Brake application / release                                                                                           |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10012 | A    | Activate the cab on TC1                                                                                               |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10013 | I    | To begin test, the EPC life signal must be live                                                                       |      | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10014 | R    | Read Defined Variable [TT] (BCU1)LI_REGULATOR_STAT = 1.0                                                              |      | OK            | 1            | Tebogo Mtombeni - 529938 | Train   |
| 10015 | R    | Read Defined Variable [TT] (BCU2)LI_REGULATOR_STAT = 1.0                                                              |      | OK            | 1            | Tebogo Mtombeni - 529938 | Train   |
| 10016 | R    | Read Defined Variable [TT] (TBCU1)LI_REGULATOR_STAT = 1.0                                                             |      | OK            | 1            | Tebogo Mtombeni - 529938 | Train   |



|       |   |                                                                                                                                                                                                                                                                                                                                    |  |    |       |                             |       |
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| 10017 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10020 | A | Put the direction selector switch in<br>FORWARD position                                                                                                                                                                                                                                                                           |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10021 | R | Emergency brake is released                                                                                                                                                                                                                                                                                                        |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10022 | R | LED 40H1 is OFF on the alarm module                                                                                                                                                                                                                                                                                                |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10023 | A | Move slowly the master controller from<br>OFF position to maximum brake position<br>and check the following items<br><br>- Variables on brake software as<br>demanded below.                                                                                                                                                       |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10024 | I | The pressure measured below can have<br>the values changed after the brake<br>adjustment during performance test. The<br>brake pressure should increase with<br>respect to the master controller position<br>and there should be no sudden jumps in<br>the pressure when observing the PWM<br>signal on the DDU maintenance screen |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10025 | I | All the brake discs apply pressure on the<br>wheels, it is necessary to go bogie by<br>bogie to physically check if the brake pads<br>are in contact with the wheel                                                                                                                                                                |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10026 | R | SBTP TC1<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)                                                                                                                                                                                                                                                                                |  | OK | 1.27  | Tebogo Mtombeni -<br>529938 | Train |
| 10027 | R | Brake discs apply pressure on car TC1                                                                                                                                                                                                                                                                                              |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10028 | R | SBTP M4<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.4   | Tebogo Mtombeni -<br>529938 | Train |
| 10029 | R | Brake discs apply pressure on car M4                                                                                                                                                                                                                                                                                               |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10030 | R | SBTP M1<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.29  | Tebogo Mtombeni -<br>529938 | Train |
| 10031 | R | Brake discs apply pressure on car M1                                                                                                                                                                                                                                                                                               |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10032 | R | SBTP M2<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.644 | Tebogo Mtombeni -<br>529938 | Train |
| 10033 | R | Brake discs apply pressure on car M2                                                                                                                                                                                                                                                                                               |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10034 | R | SBTP M3<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.321 | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                              |  |    |        |                          |       |
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| 10035 | R | Brake discs apply pressure on car M3                                                                                         |  | OK |        | Tebogo Mtombeni - 529938 | Train |
| 10036 | R | SBTP TC2<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)                                                                          |  | OK | 1.414  | Tebogo Mtombeni - 529938 | Train |
| 10037 | R | Brake discs apply pressure on car TC2                                                                                        |  | OK |        | Tebogo Mtombeni - 529938 | Train |
| 10038 | I | The pressure measured below should be approximately equal to what is observed on the PWM signa on the DDU maintenance screen |  | OK |        | Tebogo Mtombeni - 529938 | Train |
| 10039 | R | Read Min/Max [TT]<br>(MPU1)bcu1_bcubpipepress : 127<= x <= 167                                                               |  | OK | 141.06 | Tebogo Mtombeni - 529938 | Train |
| 10040 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuBPipePress : 127<= x <= 167                                                               |  | OK | 142.08 | Tebogo Mtombeni - 529938 | Train |
| 10041 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcubpipepress : 129<= x <= 169                                                              |  | OK | 142.05 | Tebogo Mtombeni - 529938 | Train |
| 10042 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcubpipepress : 129<= x <= 169                                                              |  | OK | 142.54 | Tebogo Mtombeni - 529938 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcubpipepress : 129<= x <= 169                                                              |  | OK | 138.59 | Tebogo Mtombeni - 529938 | Train |
| 10044 | R | Read Min/Max [TT]<br>(MPU1)tbcu4_bcubpipepress : 129<= x <= 169                                                              |  | OK | 136.62 | Tebogo Mtombeni - 529938 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                  |  | OK | 0      | Tebogo Mtombeni - 529938 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                  |  | OK | 0      | Tebogo Mtombeni - 529938 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                  |  | OK | 0      | Tebogo Mtombeni - 529938 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                  |  | OK | 0      | Tebogo Mtombeni - 529938 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                   |  | OK | 0      | Tebogo Mtombeni - 529938 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                   |  | OK | 0      | Tebogo Mtombeni - 529938 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                               |  | OK | 0      | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                                                                                                                                                  |  |    |     |                             |       |
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| 10052 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                                                                                                   |  | OK | 0   | Tebogo Mtombeni -<br>529938 | Train |
| 10053 | R | Check the pressure on the brake pressure<br>gauge on TC1<br>Read Undefined Value : x ()                                                                                                                          |  | OK | 155 | Tebogo Mtombeni -<br>529938 | Train |
| 10054 | R | Check the pressure on the brake pressure<br>gauge on TC2<br>Read Undefined Value : x ()                                                                                                                          |  | OK | 153 | Tebogo Mtombeni -<br>529938 | Train |
| 10055 | I | The pressure showed on pressure gauge<br>(driver desk) is the same as the measured<br>on the test point BCTP of the car TC.                                                                                      |  | OK |     | Tebogo Mtombeni -<br>529938 | Train |
| 10056 | A | Move slowly the master controller from<br>100% BRAKE position to OFF position.<br>Observe the PWM behaviour of the brake<br>cylinder pressure. it may be necessary to<br>repeat the test until you are satisfied |  | OK |     | Tebogo Mtombeni -<br>529938 | Train |
| 10057 | I | There must not have sudden release of<br>pressure while the master controller is<br>slowly moved to OFF position.                                                                                                |  | OK |     | Tebogo Mtombeni -<br>529938 | Train |
| 10058 | R | Pressure on BCTP (Car TC) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                                  |  | OK | 0   | Tebogo Mtombeni -<br>529938 | Train |
| 10059 | R | Pressure on SBTP (all M cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                              |  | OK | 0   | Tebogo Mtombeni -<br>529938 | Train |
| 10060 | R | Pressure on BCTP (all M cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                              |  | OK | 0   | Tebogo Mtombeni -<br>529938 | Train |
| 10061 | R | Pressure on SBTP all TC cars) = 0bar (+/-<br>0,2bar)<br>Read Undefined Value : x ()                                                                                                                              |  | OK | 0   | Tebogo Mtombeni -<br>529938 | Train |
| 10062 | I | It is necessary to go bogie by bogie to<br>verify that brake pads are not in contact<br>with the wheels                                                                                                          |  | OK |     | Tebogo Mtombeni -<br>529938 | Train |
| 10063 | R | Brake discs do not apply pressure on car<br>TC1                                                                                                                                                                  |  | OK |     | Tebogo Mtombeni -<br>529938 | Train |
| 10064 | R | Brake discs do not apply pressure on car<br>M4                                                                                                                                                                   |  | OK |     | Tebogo Mtombeni -<br>529938 | Train |
| 10065 | R | Brake discs do not apply pressure on car<br>M1                                                                                                                                                                   |  | OK |     | Tebogo Mtombeni -<br>529938 | Train |
| 10066 | R | Brake discs do not apply pressure on car<br>M2                                                                                                                                                                   |  | OK |     | Tebogo Mtombeni -<br>529938 | Train |
| 10067 | R | Brake discs do not apply pressure on car<br>M3                                                                                                                                                                   |  | OK |     | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                             |  |    |   |                          |       |
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| 10068 | R | Brake discs do not apply pressure on car TC2                |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10069 | I | Holding Brake                                               |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10070 | A | Put the master controller on 100% BRAKE position            |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10083 | A | Put the master controller on OFF position                   |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0 |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 1.0 |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0 |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |

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| 10087 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0 |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0  |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0  |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 0.0   |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 0.0   |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 0.0   |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 0.0   |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10096 | A | Put the driving mode switch 30S1 to<br>EFFORT position      |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10097 | A | Put the master controller on 100% BRAKE<br>position         |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |

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| 10105 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10110 | A | Position the master controller on OFF<br>position           |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |

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|-------|---|-------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10123 | A | Position the driving mode switch 30S1 to DEPOT position     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10124 | A | Position the master controller on 100% BRAKE position       |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10137 | A | Position the master controller on OFF position              |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                   |  |    |       |                             |       |
|-------|---|-------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0         |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0         |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0         |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0         |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10150 | A | Return the driving mode switch 30S1 to<br>COUPLE / WASH position  |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10151 | A | Position the master controller in 100%<br>BRAKE position          |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10152 | I | Brake isolation through the isolation cock                        |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10153 | I | TC1 service brake manual isolation                                |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10154 | A | Close the isolation cock C1.3.1                                   |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10155 | R | Lamp 40H2 is ON on the alarm mode for<br>EB reduced               |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0    |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10157 | A | Put the manometer test point to BCTP                              |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10158 | R | Pressure on BCTP decreases slowly until it<br>reaches +/- 0.2 bar |  | OK | 0.007 | Tebogo Mtombeni -<br>529938 | Train |
| 10159 | R | Brake discs are not in contact with wheels<br>on TC1 bogies       |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |



|       |   |                                                                    |  |    |   |                             |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 1.0     |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0     |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 1.0 |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                                                           |  |    |       |                             |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                               |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                               |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                               |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                               |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                                |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0                                                                                                |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10184 | A | Open the isolation cock C1.3.1                                                                                                                            |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10185 | R | Lamp 40H2 is OFF on the alarm mode for<br>EB reduced                                                                                                      |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                                                            |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10187 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in TC1 until it<br>reaches 1,47bar (+/-0,2bar) |  | OK | 1.399 | Tebogo Mtombeni -<br>529938 | Train |
| 10188 | R | Brake discs are in contact with wheels on<br>TC1 bogies                                                                                                   |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                            |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                            |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                           |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                           |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                           |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                           |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                        |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                                              |  |    |       |                             |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                            |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                            |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                            |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                            |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                           |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10207 | A | Remove manometer on TC1 BCTP point                                                                                                           |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10208 | I | M4 service brake manual isolation                                                                                                            |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10209 | A | Close the isolation cock C2.3.1                                                                                                              |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10210 | R | Message on DDU warning the<br>maintenance/driver for repair at the end<br>of the day. IOS 886: "Mechanical Brake<br>manually isolated on M4" |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10211 | R | Lamp 40H2 is "ON" on the alarm mode<br>for EB reduced                                                                                        |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10212 | A | Put manometer on M4 BCTP point                                                                                                               |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10213 | R | Pressure measured on test point BCTP<br>decreases slowly until 0 bar (+/-0,2bar)                                                             |  | OK | 0.006 | Tebogo Mtombeni -<br>529938 | Train |
| 10214 | R | Brake discs are not in contact with wheels<br>on M4 bogies                                                                                   |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                    |  |    |   |                             |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 1.0    |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 1.0  |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0        |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10233 | A | Open the isolation cock C2.3.1                                     |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                                            |  |    |      |                          |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|------|--------------------------|-------|
| 10234 | R | Lamp 40HZ is OFF for EB reduced on the alarm module                                                                                        |  | OK |      | Tebogo Mtombeni - 529938 | Train |
| 10235 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M4 car reaches 1,49bar (+/-0,2bar) |  | OK | 1.38 | Tebogo Mtombeni - 529938 | Train |
| 10236 | R | Brake discs are in contact with wheels on M4 bogies                                                                                        |  | OK |      | Tebogo Mtombeni - 529938 | Train |
| 10237 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                             |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldC = 0.0                                                                             |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                            |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                            |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                            |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                            |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                         |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                          |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                          |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                          |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                          |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                         |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10249 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                |  | OK | 0    | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                                                                              |  |    |       |                             |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10255 | A | Remove manometer on M4 BCTP point                                                                                                            |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10256 | I | M1 service brake manual isolation                                                                                                            |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10257 | A | Close the isolation cock C2.3.1                                                                                                              |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10258 | R | Message on DDU warning the<br>maintenance/driver for repair at the end<br>of the day. IOS 883: "Mechanical Brake<br>manually isolated on M1" |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10259 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module                                                                                        |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10260 | A | Put manometer on M1 BCTP point                                                                                                               |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10261 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until 0bar (+/-0,2bar)                               |  | OK | 0.005 | Tebogo Mtombeni -<br>529938 | Train |
| 10262 | R | Brake discs are not in contact with wheels<br>on M1 bogies                                                                                   |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                               |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                               |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 1.0                                                                              |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                              |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                              |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                              |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                           |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                                                     |  |    |      |                             |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|----|------|-----------------------------|-------|
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 1.0                                                                                   |  | OK | 1    | Tebogo Mtombeni -<br>529938 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10274 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                                  |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0                                                                                         |  | OK | 1    | Tebogo Mtombeni -<br>529938 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                         |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                         |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                         |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                          |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10281 | A | Open the isolation cock C2.3.1                                                                                                                      |  | OK |      | Tebogo Mtombeni -<br>529938 | Train |
| 10282 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |      | Tebogo Mtombeni -<br>529938 | Train |
| 10283 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in M1 car reaches<br>1,49bar (+/-0,2bar) |  | OK | 1.48 | Tebogo Mtombeni -<br>529938 | Train |
| 10284 | R | Brake discs are in contact with wheels on<br>M1 bogies                                                                                              |  | OK |      | Tebogo Mtombeni -<br>529938 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                      |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10286 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                      |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                     |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                    |  |    |   |                             |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10288 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10304 | A | Remove manometer on M1 BCTP point                                  |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10305 | I | M2 service brake manual isolation                                  |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10306 | A | Close the isolation cock C2.3.1                                    |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |



|       |   |                                                                                                          |  |    |       |                          |       |
|-------|---|----------------------------------------------------------------------------------------------------------|--|----|-------|--------------------------|-------|
| 10307 | R | Lamp 40HZ is ON for EB reduced on the alarm module                                                       |  | OK |       | Tebogo Mtombeni - 529938 | Train |
| 10308 | A | Put manometer on M2 BCTP point                                                                           |  | OK |       | Tebogo Mtombeni - 529938 | Train |
| 10309 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar) |  | OK | 0.005 | Tebogo Mtombeni - 529938 | Train |
| 10310 | R | Read Defined Variable [TT] (MPU1)tbcu2_servbrakeisoldc = 1.0                                             |  | OK | 1     | Tebogo Mtombeni - 529938 | Train |
| 10311 | R | Brake discs are not in contact with wheels on M2 bogies                                                  |  | OK |       | Tebogo Mtombeni - 529938 | Train |
| 10312 | R | Read Defined Variable [TT] (MPU1)bcu1_servbrakeisoldc = 0.0                                              |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10313 | R | Read Defined Variable [TT] (MPU1)BCU2_ServBrakelsolDC = 0.0                                              |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10314 | R | Read Defined Variable [TT] (MPU1)TBCU1_servbrakeisoldc = 0.0                                             |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10315 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2servicebrakedc = 1.0                                           |  | OK | 1     | Tebogo Mtombeni - 529938 | Train |
| 10316 | R | Read Defined Variable [TT] (MPU1)tbcu3_servbrakeisoldc = 0.0                                             |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10317 | R | Read Defined Variable [TT] (MPU1)tbcu4_servbrakeisoldc = 0.0                                             |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10318 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc1servicebrakedc = 0.0                                          |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10319 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1servicebrakedc = 0.0                                           |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10320 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3servicebrakedc = 0.0                                           |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10321 | R | Read Defined Variable [TT] (MPU1)li_sbk_m4servicebrakedc = 0.0                                           |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10322 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2servicebrakedc = 0.0                                          |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10323 | R | Read Defined Variable [TT] (MPU1)TBCU1_brakenotapp = 0.0                                                 |  | OK | 0     | Tebogo Mtombeni - 529938 | Train |
| 10324 | R | Read Defined Variable [TT] (MPU1)tbcu2_brakenotapp = 1.0                                                 |  | OK | 1     | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                                                                                     |  |    |      |                             |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|----|------|-----------------------------|-------|
| 10325 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                         |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                         |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                          |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10329 | A | Open the isolation cock C2.3.1                                                                                                                      |  | OK |      | Tebogo Mtombeni -<br>529938 | Train |
| 10330 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |      | Tebogo Mtombeni -<br>529938 | Train |
| 10331 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in M2 car reaches<br>1,49bar (+/-0,2bar) |  | OK | 1.43 | Tebogo Mtombeni -<br>529938 | Train |
| 10332 | R | Brake discs are in contact with wheels on<br>M2 bogies                                                                                              |  | OK |      | Tebogo Mtombeni -<br>529938 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                      |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                      |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                     |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                     |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                     |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                  |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                                  |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                                              |  |    |       |                             |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10348 | A | Remove manometer on M2 BCTP point                                                                                                            |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10349 | I | M3 Service brake manual isolation                                                                                                            |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10350 | A | Close the isolation cock C2.3.1                                                                                                              |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10351 | R | Message on DDU warning the<br>maintenance/driver for repair at the end<br>of the day. IOS 885: "Mechanical Brake<br>manually isolated on M3" |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10352 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module                                                                                        |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10353 | A | Put the manometer on the BCTP test point<br>of M3                                                                                            |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10354 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until Obar (+/-0,2bar)                               |  | OK | 0.005 | Tebogo Mtombeni -<br>529938 | Train |
| 10355 | R | Brake discs are not in contact with wheels<br>on M3 bogies                                                                                   |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                               |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0                                                                               |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                              |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                              |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 1.0                                                                              |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                    |  |    |   |                             |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10361 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 1.0  |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0        |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 1.0    |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                                                     |  |    |       |                             |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10380 | A | Open the isolation cock C2.3.1                                                                                                                      |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10381 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10382 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in M3 car reaches<br>1,49bar (+/-0,2bar) |  | OK | 1.399 | Tebogo Mtombeni -<br>529938 | Train |
| 10383 | R | Brake discs are in contact with wheels on<br>M3 bogies                                                                                              |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                      |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldC = 0.0                                                                                      |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10386 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                     |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                     |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                     |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                     |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                                   |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                                  |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                         |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                                                |  |    |       |                             |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10397 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                    |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10398 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                    |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                    |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                     |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                     |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10402 | A | Remove the manometer from the BCTP<br>test point                                                                                               |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10403 | I | TC2 Service brake manual isolation                                                                                                             |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10404 | A | Close the isolation cock C1.3.1                                                                                                                |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10405 | R | Message on DDU warning the<br>maintenance/driver for repair at the end<br>of the day. IOS 882 : "Mechanical Brake<br>manually isolated on TC2" |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10406 | R | Lamp 40H2 is ON for EB reduced on the<br>alarm module                                                                                          |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10407 | A | Put manometer on BCTP test point                                                                                                               |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10408 | R | Pressure measured on test point BCTP<br>decreases slowly (drain the brake<br>reservoir) until Obar (+/-0,2bar)                                 |  | OK | 0.004 | Tebogo Mtombeni -<br>529938 | Train |
| 10409 | R | Brake discs are not in contact with wheels<br>on TC2 bogies                                                                                    |  | OK |       | Tebogo Mtombeni -<br>529938 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                 |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 1.0                                                                                 |  | OK | 1     | Tebogo Mtombeni -<br>529938 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                |  | OK | 0     | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                                                     |  |    |      |                             |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|----|------|-----------------------------|-------|
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                     |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                  |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10420 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                                   |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 1.0                                                                                  |  | OK | 1    | Tebogo Mtombeni -<br>529938 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                         |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                         |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10424 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                         |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                         |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0                                                                                          |  | OK | 1    | Tebogo Mtombeni -<br>529938 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                          |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |
| 10428 | A | Open the isolation cock C1.3.1                                                                                                                      |  | OK |      | Tebogo Mtombeni -<br>529938 | Train |
| 10429 | R | Lamp 40H2 is OFF for EB reduced on the<br>alarm module                                                                                              |  | OK |      | Tebogo Mtombeni -<br>529938 | Train |
| 10430 | A | Put the manometer on the BCTP point in<br>TC2                                                                                                       |  | OK |      | Tebogo Mtombeni -<br>529938 | Train |
| 10431 | R | Pressure measured on test point BCTP<br>increases slowly (brake reservoir) until<br>service brake pressure in TC car reaches<br>1,47bar (+/-0,2bar) |  | OK | 1.44 | Tebogo Mtombeni -<br>529938 | Train |
| 10432 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                                      |  | OK | 0    | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                    |  |    |   |                             |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10433 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10434 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10438 | R | Brake discs are in contact with wheels on<br>TC2 bogies            |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldc = 0.0     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10443 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10444 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10445 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10447 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10448 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10449 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10450 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |



|       |   |                                                                                                                                  |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10451 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                      |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10452 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                      |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10453 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                      |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10454 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                      |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10455 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                       |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10456 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                       |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10457 | A | Remove the manometer from the BCTP<br>point of TC2                                                                               |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10458 | I | BCU Fault Test                                                                                                                   |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10459 | I | Emergency brake must be applied to force<br>the variables mentioned.<br>After forcing the variables, release<br>emergency brake. |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10460 | A | Position the master controller on OFF<br>position                                                                                |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10461 | A | Put the direction selector switch in<br>Neutral position                                                                         |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10462 | A | Force [TT] (BCU1)LO_BRK_FLT = 0.0                                                                                                |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10463 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 0.0                                                                     |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10464 | A | Release [TT] (BCU1)LO_BRK_FLT                                                                                                    |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10465 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 1.0                                                                     |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |
| 10466 | A | Force [TT] (TBCU4)LO_BRK_FLT = 0.0                                                                                               |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10467 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 0.0                                                                      |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10468 | A | Release [TT] (TBCU4)LO_BRK_FLT                                                                                                   |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10469 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 1.0                                                                      |  | OK | 1 | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                                                                                                                                      |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10470 | A | Force [TT] (TBCU2)LO_BRK_FLT = 0.0                                                                                                                                   |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10471 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2bcufault = 0.0                                                                                                             |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10472 | A | Release [TT] (TBCU2)LO_BRK_FLT                                                                                                                                       |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10473 | R | Read Defined Variable [TT] (MPU1)li_sbk_m2bcufault = 1.0                                                                                                             |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10474 | A | Force [TT] (TBCU1)LO_BRK_FLT = 0.0                                                                                                                                   |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10475 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1bcufault = 0.0                                                                                                             |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10476 | A | Release [TT] (TBCU1)LO_BRK_FLT                                                                                                                                       |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10477 | R | Read Defined Variable [TT] (MPU1)li_sbk_m1bcufault = 1.0                                                                                                             |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10478 | A | Force [TT] (TBCU3)LO_BRK_FLT = 0.0                                                                                                                                   |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10479 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3bcufault = 0.0                                                                                                             |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10480 | A | Release [TT] (TBCU3)LO_BRK_FLT                                                                                                                                       |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10481 | R | Read Defined Variable [TT] (MPU1)li_sbk_m3bcufault = 1.0                                                                                                             |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10482 | A | Force [TT] (BCU2)LO_BRK_FLT = 0.0                                                                                                                                    |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10483 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2bcufault = 0.0                                                                                                            |  | OK | 0 | Tebogo Mtombeni - 529938 | Train |
| 10484 | A | Release [TT] (BCU2)LO_BRK_FLT                                                                                                                                        |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10485 | R | Read Defined Variable [TT] (MPU1)li_sbk_tc2bcufault = 1.0                                                                                                            |  | OK | 1 | Tebogo Mtombeni - 529938 | Train |
| 10486 | I | Wheel Slide test                                                                                                                                                     |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10487 | A | On DDU from TC1 car, request the WSP test on test screen and perform the actions shown on DDU.                                                                       |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10488 | I | To request the WSP test, go to test screen and request the brake test. Perform the Parking brake test. After the parking brake test, the WSP test will be available. |  | OK |   | Tebogo Mtombeni - 529938 | Train |
| 10489 | I | Safety requirement: [Prasa1-56]                                                                                                                                      |  | OK |   | Tebogo Mtombeni - 529938 | Train |

|       |   |                                                                                         |  |    |   |                             |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10490 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BcuTstOk = 0.0                                 |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10491 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_BcuTstOk = 0.0                                |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10492 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_BcuTstOk = 0.0                                |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10493 | R | Read Defined Variable [TT]<br>(MPU1)TBCU3_BcuTstOk = 0.0                                |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10494 | R | Read Defined Variable [TT]<br>(MPU1)TBCU4_BcuTstOk = 0.0                                |  | OK | 0 | Tebogo Mtombeni -<br>529938 | Train |
| 10495 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                                     |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10496 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                                     |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10497 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10498 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                                     |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10499 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                                     |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10500 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10501 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                                     |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10502 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                                     |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10503 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10504 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                                     |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10505 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                                     |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |
| 10506 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>OFF. |  | OK |   | Tebogo Mtombeni -<br>529938 | Train |

|       |   |                                                 |  |    |  |                             |       |
|-------|---|-------------------------------------------------|--|----|--|-----------------------------|-------|
| 10507 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 |  | OK |  | Tebogo Mtombeni -<br>529938 | Train |
| 10508 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 |  | OK |  | Tebogo Mtombeni -<br>529938 | Train |
| 10509 | I | End of Test                                     |  | OK |  | Tebogo Mtombeni -<br>529938 | Train |

### 15.1.2 040\_SUP-Car Suspension

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                | File | Result status | Result value | Operator              | Vehicle |
|-------|------|--------------------------------------------------------------------------------------------|------|---------------|--------------|-----------------------|---------|
| 10001 | I    | Car suspension Test                                                                        |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10002 | I    | Initial Conditions                                                                         |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10003 | I    | Car suspension is not isolated in all cars                                                 |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10004 | I    | Air in main pipe is 10 bar                                                                 |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10005 | I    | TC1                                                                                        |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10006 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 327.9        | Carol Gumedé - 425280 | Train   |
| 10007 | R    | Read Min/Max [TT]<br>(MPU1)bcu1_bcususpess : 311<= x <= 371                                |      | OK            | 328.51       | Carol Gumedé - 425280 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspsodc = 0.0                                    |      | OK            | 0            | Carol Gumedé - 425280 | Train   |
| 10009 | A    | Close the isolation cock C1.10                                                             |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspsodc = 1.0                                    |      | OK            | 1            | Carol Gumedé - 425280 | Train   |
| 10011 | R    | Check Pressure on test point C1.11.2 = Obar<br>Read Undefined Value : x ()                 |      | OK            | 0            | Carol Gumedé - 425280 | Train   |
| 10012 | A    | Open the isolation cock C1.10                                                              |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10013 | A    | Check all test point covers have been put back in place in the brake panel and suspension. |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10014 | I    | M4                                                                                         |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10015 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 274.6        | Carol Gumedé - 425280 | Train   |
| 10016 | R    | Read Min/Max [TT]<br>(MPU1)tbcu4_bcususpess : 260<= x <= 320                               |      | OK            | 274.88       | Carol Gumedé - 425280 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspsodc = 0.0                                   |      | OK            | 0            | Carol Gumedé - 425280 | Train   |
| 10018 | A    | Close the isolation cock C2.10                                                             |      | OK            |              | Carol Gumedé - 425280 | Train   |

|       |   |                                                                                            |  |    |        |                       |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--------|-----------------------|-------|
| 10019 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Carol Gumedé - 425280 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspsodc = 1.0                                   |  | OK | 1      | Carol Gumedé - 425280 | Train |
| 10021 | A | Open the isolation cock C2.10                                                              |  | OK |        | Carol Gumedé - 425280 | Train |
| 10022 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Carol Gumedé - 425280 | Train |
| 10023 | I | M1                                                                                         |  | OK |        | Carol Gumedé - 425280 | Train |
| 10024 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 293    | Carol Gumedé - 425280 | Train |
| 10025 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcususppress : 271<= x <= 331                             |  | OK | 293.63 | Carol Gumedé - 425280 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 0.0                                   |  | OK | 0      | Carol Gumedé - 425280 | Train |
| 10027 | A | Close the isolation cock C2.10                                                             |  | OK |        | Carol Gumedé - 425280 | Train |
| 10028 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Carol Gumedé - 425280 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 1.0                                   |  | OK | 1      | Carol Gumedé - 425280 | Train |
| 10030 | A | Open the isolation cock C2.10                                                              |  | OK |        | Carol Gumedé - 425280 | Train |
| 10031 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Carol Gumedé - 425280 | Train |
| 10032 | I | M2                                                                                         |  | OK |        | Carol Gumedé - 425280 | Train |
| 10033 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 293.9  | Carol Gumedé - 425280 | Train |
| 10034 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcususppress : 271<= x <= 331                             |  | OK | 294.13 | Carol Gumedé - 425280 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 0.0                                   |  | OK | 0      | Carol Gumedé - 425280 | Train |
| 10036 | A | Close the isolation cock C2.10                                                             |  | OK |        | Carol Gumedé - 425280 | Train |
| 10037 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Carol Gumedé - 425280 | Train |

|       |   |                                                                                            |    |        |                       |       |
|-------|---|--------------------------------------------------------------------------------------------|----|--------|-----------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 1.0                                   | OK | 1      | Carol Gumedé - 425280 | Train |
| 10039 | A | Open the isolation cock C2.10                                                              | OK |        | Carol Gumedé - 425280 | Train |
| 10040 | A | Check all test point covers have been put back in place in the brake panel and suspension. | OK |        | Carol Gumedé - 425280 | Train |
| 10041 | I | M3                                                                                         | OK |        | Carol Gumedé - 425280 | Train |
| 10042 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      | OK | 269.1  | Carol Gumedé - 425280 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcususpPress : 260<= x <= 320                             | OK | 269.45 | Carol Gumedé - 425280 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 0.0                                   | OK | 0      | Carol Gumedé - 425280 | Train |
| 10045 | A | Close the isolation cock C2.10                                                             | OK |        | Carol Gumedé - 425280 | Train |
| 10046 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 | OK | 0      | Carol Gumedé - 425280 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 1.0                                   | OK | 1      | Carol Gumedé - 425280 | Train |
| 10048 | A | Open the isolation cock C2.10                                                              | OK |        | Carol Gumedé - 425280 | Train |
| 10049 | A | Check all test point covers have been put back in place in the brake panel and suspension. | OK |        | Carol Gumedé - 425280 | Train |
| 10050 | I | TC2                                                                                        | OK |        | Carol Gumedé - 425280 | Train |
| 10051 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      | OK | 323.7  | Carol Gumedé - 425280 | Train |
| 10052 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuSuspPress : 311<= x <= 371                              | OK | 324.25 | Carol Gumedé - 425280 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SuspIsoDC = 0.0                                   | OK | 0      | Carol Gumedé - 425280 | Train |
| 10054 | A | Close the isolation cock C1.10                                                             | OK |        | Carol Gumedé - 425280 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SuspIsoDC = 1.0                                   | OK | 1      | Carol Gumedé - 425280 | Train |
| 10056 | R | Check Pressure on test point C1.11.2 = Obar<br>Read Undefined Value : x ()                 | OK | 0      | Carol Gumedé - 425280 | Train |
| 10057 | A | Open the isolation cock C1.10                                                              | OK |        | Carol Gumedé - 425280 | Train |



|       |   |                                                                                            |  |    |  |                       |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10058 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |  | Carol Gumedé - 425280 | Train |
| 10059 | I | End of Test                                                                                |  | OK |  | Carol Gumedé - 425280 | Train |





|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 16 – Emergency Brake Interlock

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### 16.1 Instructions list

### 16.1.1 044\_UBK-Emergency Brake Interlock

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                    | File | Result status | Result value | Operator                   | Vehicle |
|-------|------|--------------------------------------------------------------------------------|------|---------------|--------------|----------------------------|---------|
| 10001 | I    | Emergency Brake SPP=044 UBK                                                    |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10002 | I    | Emergency Brake Cylinder Pressure                                              |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10003 | I    | Pressure in the main pipe should be 10 bar +/- 0.2bar                          |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10004 | I    | The direction selector switch is in Neutral position                           |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10005 | I    | Emergency brake is applied                                                     |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10006 | A    | Measure the pressure of the BCTP point in all cars with a calibrated manometer |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10007 | R    | BCTP TC1<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 175.9        | Mlungisi Madela - 529927   | Train   |
| 10008 | R    | BCTP M4<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 204.1        | Mlungisi Madela - 529927   | Train   |
| 10009 | R    | BCTP M1<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 218.8        | Siphesihle Mchunu - 491465 | Train   |
| 10010 | R    | BCTP M2<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 217.1        | Mlungisi Madela - 529927   | Train   |
| 10011 | R    | BCTP M3<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 193.3        | Mlungisi Madela - 529927   | Train   |
| 10012 | R    | BCTP TC2<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 171.4        | Mlungisi Madela - 529927   | Train   |
| 10013 | I    | Emergency brake TC1                                                            |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10014 | I    | Emergency brake by Direction Switch TC1                                        |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10015 | I    | Direction selector switch is in NEUTRAL position                               |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10016 | A    | Active cab on TC1                                                              |      | OK            |              | Mlungisi Madela - 529927   | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                           |      | OK            | 1            | Mlungisi Madela - 529927   | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_tINeb = 0.0                           |      | OK            | 0            | Mlungisi Madela - 529927   | Train   |
| 10019 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tneb = 0.0                            |      | OK            | 0            | Mlungisi Madela - 529927   | Train   |

|       |   |                                                          |  |    |   |                             |       |
|-------|---|----------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10024 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10025 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10032 | A | Put the direction selector switch in<br>REVERSE position |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10033 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                                                                           |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10040 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10041 | I | Emergency Brake Button TC1                                                                                                |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10042 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10043 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10044 | A | Apply emergency brake using the red<br>button 44S1                                                                        |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10045 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10046 | A | Release the button 44S1                                                                                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10047 | A | Put the direction selector switch in<br>NEUTRAL Position and again in<br>FORWARD position to reset the<br>emergency brake |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10048 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10049 | A | On the non-active cab TC2, apply<br>emergency brake using the red button<br>44S1                                          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10050 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10051 | A | Release the button 44S1                                                                                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10052 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10053 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10054 | I | Emergency Brake by Master controller<br>TC1                                                                               |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10055 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                          |  |    |   |                             |       |
|-------|---|----------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10056 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10057 | A | Put the master controller in EMERGENCY<br>BRAKE position |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10058 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10059 | A | Put the master controller in OFF position                |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10060 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10061 | I | PEA override TC1                                         |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10062 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10063 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10064 | R | Lamp 44H5 is OFF                                         |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10065 | A | Pull any PEA on train                                    |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10066 | R | Lamp 44H5 is ON                                          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10067 | A | Press the PEA override button 44S5                       |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10068 | A | Reset the PEA by switch 44S6                             |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10069 | R | Lamp 44H5 is OFF                                         |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10070 | A | Press the button 44S5 to normalize PEA<br>override       |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10071 | I | Emergency brake TC2                                      |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10072 | I | Emergency brake by Direction Switch TC2                  |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10073 | I | Direction selector switch is in NEUTRAL<br>position      |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10074 | A | Switch active cab to TC2                                 |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10075 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                          |  |    |   |                             |       |
|-------|---|----------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10082 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10083 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10090 | A | Put the direction selector switch in<br>REVERSE position |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10091 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |

|       |   |                                                                                                                           |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10098 | I | Emergency Brake Button TC2                                                                                                |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10099 | A | Apply emergency brake using the red<br>button 44S1                                                                        |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10100 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10101 | A | Release the button 44S1                                                                                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10103 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position to reset the<br>emergency brake |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10104 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10105 | A | On the non-active can TC1, apply<br>emergency brake using the red button<br>44S1                                          |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10106 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10107 | A | Release the button 44S1                                                                                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10108 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position to reset the<br>emergency brake |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10109 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10110 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10111 | I | Emergency Brake by Master controller<br>TC2                                                                               |  | OK |   | Mlungisi Madela -<br>529927 | Train |



|       |   |                                                                   |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10112 | A | Put the direction selector switch in FORWARD position             |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10113 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10114 | A | Put the master controller in EMERGENCY BRAKE position             |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10115 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10116 | A | Put the master controller in OFF position                         |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10117 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0              |  | OK | 1 | Mlungisi Madela - 529927 | Train |
| 10118 | I | PEA override TC2                                                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10119 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10120 | A | Pull any PEA on train                                             |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10121 | R | Lamp 44H5 is ON                                                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10122 | A | Press the PEA override button 44S5                                |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10123 | A | Reset the PEA by switch 44S6                                      |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10124 | R | Lamp 44H5 is OFF                                                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10125 | A | Press the button 44S5 to normalize PEA override                   |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10126 | A | Put the direction selector switch in Neutral and FORWARD position |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10127 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0              |  | OK | 0 | Mlungisi Madela - 529927 | Train |
| 10128 | I | Low Pressure                                                      |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10129 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10130 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                  |  | OK |   | Mlungisi Madela - 529927 | Train |
| 10131 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                  |  | OK |   | Mlungisi Madela - 529927 | Train |

|       |   |                                                                                                                |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10132 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                                               |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10133 | R | Drain the air in the main pipe until it<br>reaches below 6 bar, i.e. drain air to reach<br>the range 5-5.5 bar |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10134 | R | On DDU screen, emergency brake due to<br>low pressure appears                                                  |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 0.0                                                          |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 0.0                                                          |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10137 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                                                           |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10138 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10139 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2                                                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2                                                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                                   |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10142 | I | The pressure in the main pipe should be at<br>least 7 bar for emergency brake to be<br>released                |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10143 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position                      |  | OK |   | Mlungisi Madela -<br>529927 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 1.0                                                          |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 1.0                                                          |  | OK | 1 | Mlungisi Madela -<br>529927 | Train |
| 10146 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                                                           |  | OK | 0 | Mlungisi Madela -<br>529927 | Train |
| 10147 | I | End of Test                                                                                                    |  | OK |   | Mlungisi Madela -<br>529927 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 17 – Fire Detection

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### 17.1 Instructions list

### 17.1.1 067\_FSD-Fire Detection

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                | File | Result status | Result value | Operator                   | Vehicle |
|-------|------|--------------------------------------------------------------------------------------------|------|---------------|--------------|----------------------------|---------|
| 10001 | I    | Fire Detection SPP= 067                                                                    |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | Start of Test                                                                              |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | A    | Turn the key to Active cab                                                                 |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | A    | Close the battery contactor 18S1                                                           |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                 |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                     |      | OK            | 1            | Siphesihle Mchunu - 491465 | Train   |
| 10007 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                      |      | OK            | 2            | Siphesihle Mchunu - 491465 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)NET_FDCUPresCIP = 1.0                                  |      | OK            | 1            | Siphesihle Mchunu - 491465 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireSystemOk = 1.0                                 |      | OK            | 1            | Siphesihle Mchunu - 491465 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireLocation = 1.0                                 |      | OK            | 1            | Siphesihle Mchunu - 491465 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                       |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data2 = 0.0                                       |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data3 = 0.0                                       |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_DiagData = 0.0                                    |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                     |      | OK            | 17           | Siphesihle Mchunu - 491465 | Train   |
| 10016 | I    | Fire Detection Simulation test in Saloon                                                   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10017 | I    | In order to see the CCTV footage where fire was simulated, navigate through the ISO event. |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |

|       |   |                                                                                                                               |                                                                                   |    |    |                           |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----|---------------------------|-------|
| 10018 | I | Both cameras will be activated when a fire is detected in the saloon                                                          |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10019 | I | All HVACs are operational                                                                                                     |  | OK |    | Siphehile Mchunu - 491465 | Train |
| 10020 | I | TC1                                                                                                                           |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10021 | A | Simulate a fire by spraying the gas on the fire detection unit 67A4 on TC1 cab for at least 1s                                |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10022 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                                                |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10023 | R | HVAC stops working in the cab and TC1 saloon                                                                                  |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                                                           |                                                                                   | OK | 49 | Siphehile Mchunu - 491465 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1.0                                                                             |                                                                                   | OK | 1  | Siphehile Mchunu - 491465 | Train |
| 10026 | A | Reset the fire detection loop on the DDU                                                                                      |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10027 | R | 67H1 turns OFF on the Alarm Module and NO fire detected on the DDU                                                            |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10028 | R | The HVAC of TC1 Cab and Saloon starts working in normal condition                                                             |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                                                             |                                                                                   | OK | 0  | Siphehile Mchunu - 491465 | Train |
| 10030 | A | It takes about 40 seconds for the variable "FDCU_Status" below to change to 17. Read the variable before the next simulation. |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                                                           |                                                                                   | OK | 17 | Siphehile Mchunu - 491465 | Train |
| 10032 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC1 car for at least 1s                                |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10033 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on the DDU                                           |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10034 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                                                |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |
| 10035 | R | HVAC stop working in TC1 saloon.                                                                                              |                                                                                   | OK |    | Siphehile Mchunu - 491465 | Train |

|       |   |                                                                                                      |  |    |    |                              |       |
|-------|---|------------------------------------------------------------------------------------------------------|--|----|----|------------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49 | Siphehile Mchunu -<br>491465 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 2.0                                                 |  | OK | 2  | Siphehile Mchunu -<br>491465 | Train |
| 10038 | A | Reset the fire detection loop on the DDU                                                             |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10039 | R | HVAC starts working in TC1 saloon                                                                    |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10040 | R | Camera footage disappears from the DDU<br>screen                                                     |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0  | Siphehile Mchunu -<br>491465 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17 | Siphehile Mchunu -<br>491465 | Train |
| 10043 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A3 on TC1 car for at<br>least 1s |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10044 | R | The CCTV footage showing TC1 saloon<br>where the fire was detected is shown on<br>the DDU            |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10045 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location                    |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10046 | R | HVAC stop working in TC1 saloon                                                                      |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49 | Siphehile Mchunu -<br>491465 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 4.0                                                 |  | OK | 4  | Siphehile Mchunu -<br>491465 | Train |
| 10049 | A | Reset the fire detection loop on the DDU                                                             |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10050 | R | HVAC starts working in TC1 saloon                                                                    |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10051 | R | Camera footage disappears from the DDU<br>screen                                                     |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0  | Siphehile Mchunu -<br>491465 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17 | Siphehile Mchunu -<br>491465 | Train |
| 10054 | I | M4 car Test                                                                                          |  | OK |    | Siphehile Mchunu -<br>491465 | Train |
| 10055 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A2 on M4 car for at              |  | OK |    | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                                               |  |    |    |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|----|----------------------------|-------|
|       |   | least 1s                                                                                      |  |    |    |                            |       |
| 10056 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10057 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10058 | R | HVAC unit stop in M4 saloon.                                                                  |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49 | Siphesihle Mchunu - 491465 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32.0                                            |  | OK | 32 | Siphesihle Mchunu - 491465 | Train |
| 10061 | A | Reset the fire detection loop on the DDU                                                      |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10062 | R | HVAC starts working in the saloon                                                             |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10063 | R | Camera footage disappears from the DDU screen                                                 |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0  | Siphesihle Mchunu - 491465 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17 | Siphesihle Mchunu - 491465 | Train |
| 10066 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M4 car for at least 1s |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10067 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10068 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10069 | R | HVAC stop working in the saloon                                                               |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10070 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49 | Siphesihle Mchunu - 491465 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 64.0                                            |  | OK | 64 | Siphesihle Mchunu - 491465 | Train |
| 10072 | A | Reset the fire detection loop on the DDU                                                      |  | OK |    | Siphesihle Mchunu - 491465 | Train |
| 10073 | R | HVAC starts working in M4 saloon                                                              |  | OK |    | Siphesihle Mchunu - 491465 | Train |



|       |   |                                                                                               |  |    |     |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|-----|---------------------------|-------|
| 10074 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0   | Siphehile Mchunu - 491465 | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17  | Siphehile Mchunu - 491465 | Train |
| 10077 | I | M1 car                                                                                        |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10078 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M1 car for at least 1s |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10079 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10080 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10081 | R | HVAC stop working on M1                                                                       |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49  | Siphehile Mchunu - 491465 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 256.0                                           |  | OK | 256 | Siphehile Mchunu - 491465 | Train |
| 10084 | A | Reset the fire detection loop on the DDU                                                      |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10085 | R | HVAC starts working in M1 saloon                                                              |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10086 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0   | Siphehile Mchunu - 491465 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17  | Siphehile Mchunu - 491465 | Train |
| 10089 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M1 car for at least 1s |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10090 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Siphehile Mchunu - 491465 | Train |
| 10091 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Siphehile Mchunu - 491465 | Train |

|       |   |                                                                                           |  |    |      |                            |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|------|----------------------------|-------|
| 10092 | R | HVAC stop working in M1 saloon.                                                           |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Siphesihle Mchunu - 491465 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 512.0                                       |  | OK | 512  | Siphesihle Mchunu - 491465 | Train |
| 10095 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10096 | R | HVAC starts working in M1 saloon                                                          |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10097 | R | Camera footage disappears from the DDU screen                                             |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0    | Siphesihle Mchunu - 491465 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17   | Siphesihle Mchunu - 491465 | Train |
| 10100 | I | M2 car Test                                                                               |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10101 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M2 for at least 1s |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10102 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10103 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10104 | R | HVAC stop working in M2                                                                   |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Siphesihle Mchunu - 491465 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 4096.0                                      |  | OK | 4096 | Siphesihle Mchunu - 491465 | Train |
| 10107 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10108 | R | HVAC starts working in M2                                                                 |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10109 | R | Camera footage disappears from DDU screen                                                 |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0    | Siphesihle Mchunu - 491465 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17   | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                                           |  |    |       |                           |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|-------|---------------------------|-------|
| 10112 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M2 for at least 1s |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10113 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10114 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10115 | R | HVAC stop working                                                                         |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49    | Siphehile Mchunu - 491465 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 2048.0                                      |  | OK | 2048  | Siphehile Mchunu - 491465 | Train |
| 10118 | A | Reset the fire detection loop on the DDU                                                  |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10119 | R | HVAC starts working in M2                                                                 |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10120 | R | Camera footage disappears from the DDU screen                                             |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0     | Siphehile Mchunu - 491465 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17    | Siphehile Mchunu - 491465 | Train |
| 10123 | I | M3 car Test                                                                               |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10124 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M3 for at least 1s |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10125 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU        |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10126 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10127 | R | HVAC stop working in M3                                                                   |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49    | Siphehile Mchunu - 491465 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32768.0                                     |  | OK | 32768 | Siphehile Mchunu - 491465 | Train |

|       |   |                                                                                            |  |    |       |                           |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|-------|---------------------------|-------|
| 10130 | A | Reset the fire detection loop on the DDU                                                   |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10131 | R | HVAC starts working in M3                                                                  |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10132 | R | Camera footage disappears from the DDU screen                                              |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0     | Siphehile Mchunu - 491465 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                        |  | OK | 17    | Siphehile Mchunu - 491465 | Train |
| 10135 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M3 for at least 1s  |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10136 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU         |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10137 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10138 | R | HVAC stop working in M3                                                                    |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                        |  | OK | 49    | Siphehile Mchunu - 491465 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 16384.0                                      |  | OK | 16384 | Siphehile Mchunu - 491465 | Train |
| 10141 | A | Reset the fire detection loop on the DDU                                                   |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10142 | R | HVAC starts working in M3                                                                  |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10143 | R | Camera footage disappears from the DDU screen                                              |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10144 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0     | Siphehile Mchunu - 491465 | Train |
| 10145 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                        |  | OK | 17    | Siphehile Mchunu - 491465 | Train |
| 10146 | I | TC2                                                                                        |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10147 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC2 for at least 1s |  | OK |       | Siphehile Mchunu - 491465 | Train |
| 10148 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        |  | OK |       | Siphehile Mchunu - 491465 | Train |

|       |   |                                                                                            |  |    |        |                            |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--------|----------------------------|-------|
| 10149 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10150 | R | HVAC stops working in TC2 saloon                                                           |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                        |  | OK | 49     | Siphesihle Mchunu - 491465 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 524288.0                                     |  | OK | 524288 | Siphesihle Mchunu - 491465 | Train |
| 10153 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10154 | R | HVAC starts working in TC2                                                                 |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10155 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0      | Siphesihle Mchunu - 491465 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                        |  | OK | 17     | Siphesihle Mchunu - 491465 | Train |
| 10158 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC2 for at least 1s |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10159 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10160 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10161 | R | HVAC stops working in TC2 saloon                                                           |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10162 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                        |  | OK | 49     | Siphesihle Mchunu - 491465 | Train |
| 10163 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 262144.0                                     |  | OK | 262144 | Siphesihle Mchunu - 491465 | Train |
| 10164 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10165 | R | HVAC starts working in TC2                                                                 |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10166 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Siphesihle Mchunu - 491465 | Train |
| 10167 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0      | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                                                      |                                                                                     |    |         |                              |       |
|-------|---|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---------|------------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |                                                                                     | OK | 17      | Siphehile Mchunu -<br>491465 | Train |
| 10169 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A4 on TC2 cab for at<br>least 1s |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10170 | R | 67H1 becomes "ON" on the Alarm Module<br>of TC2 and TC1, and the DDU also shows<br>the fire location |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10171 | R | HVAC stops working in TC2 saloon                                                                     |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |                                                                                     | OK | 49      | Siphehile Mchunu -<br>491465 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 131072.0                                            |                                                                                     | OK | 131072  | Siphehile Mchunu -<br>491465 | Train |
| 10174 | A | Reset the fire detection loop on the DDU                                                             |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10175 | R | HVAC starts working in TC2                                                                           |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |                                                                                     | OK | 0       | Siphehile Mchunu -<br>491465 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |                                                                                     | OK | 17      | Siphehile Mchunu -<br>491465 | Train |
| 10178 | I | Fire Detection Simulation Underframe                                                                 |  | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10179 | I | TC2 ACU Test                                                                                         |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10180 | A | Toggle the switch to activate a fire in the<br>ACU                                                   |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10181 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location                    |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10182 | R | Read Undefined Variable [TT]<br>(MPU1)FDCU_Data1                                                     |                                                                                     | OK | 2097152 | Siphehile Mchunu -<br>491465 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0                                        |                                                                                     | OK | 0       | Siphehile Mchunu -<br>491465 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                                        |                                                                                     | OK | 1       | Siphehile Mchunu -<br>491465 | Train |
| 10185 | A | Remove the switch and put back the cover                                                             |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |
| 10186 | A | Reset the fire detection loop from the<br>DDU                                                        |                                                                                     | OK |         | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                                   |  |    |       |                              |       |
|-------|---|-----------------------------------------------------------------------------------|--|----|-------|------------------------------|-------|
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Siphehile Mchunu -<br>491465 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Siphehile Mchunu -<br>491465 | Train |
| 10189 | I | M3 car propulsion box                                                             |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10190 | A | Toggle the switch to activate a fire in M3<br>propulsion box                      |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10191 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 65536.0                          |  | OK | 65536 | Siphehile Mchunu -<br>491465 | Train |
| 10193 | R | Confirm that the value above is 65536                                             |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10194 | A | Remove the switch and put back the cover                                          |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10195 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Siphehile Mchunu -<br>491465 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Siphehile Mchunu -<br>491465 | Train |
| 10198 | I | M2 car propulsion box                                                             |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10199 | A | Toggle the switch to activate a fire in M2<br>propulsion box                      |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10200 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 8192.0                           |  | OK | 8192  | Siphehile Mchunu -<br>491465 | Train |
| 10202 | A | Remove the switch and put back the cover                                          |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10203 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Siphehile Mchunu -<br>491465 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Siphehile Mchunu -<br>491465 | Train |
| 10206 | I | M1 car propulsion box                                                             |  | OK |       | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                                |  |    |      |                            |       |
|-------|---|--------------------------------------------------------------------------------|--|----|------|----------------------------|-------|
| 10207 | A | Toggle the switch to activate a fire in M1 propulsion box                      |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10208 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10209 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1024.0                           |  | OK | 1024 | Siphesihle Mchunu - 491465 | Train |
| 10210 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr1 = 1.0                     |  | OK | 1    | Siphesihle Mchunu - 491465 | Train |
| 10211 | A | Remove the switch and put back the cover                                       |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10212 | A | Reset the fire detection loop from the DDU                                     |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10213 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                              |  | OK | 0    | Siphesihle Mchunu - 491465 | Train |
| 10214 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                            |  | OK | 17   | Siphesihle Mchunu - 491465 | Train |
| 10215 | I | M4 Propulsion box                                                              |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10216 | A | Toggle the switch to activate a fire in M4 Propulsion box                      |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10217 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 128.0                            |  | OK | 128  | Siphesihle Mchunu - 491465 | Train |
| 10219 | A | Remove the switch and put back the cover                                       |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10220 | A | Reset the fire detection loop from the DDU                                     |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10221 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                              |  | OK | 0    | Siphesihle Mchunu - 491465 | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                            |  | OK | 17   | Siphesihle Mchunu - 491465 | Train |
| 10223 | I | TC1 ACU Test                                                                   |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10224 | A | Toggle the switch in TC1 to activate a fire in the ACU                         |  | OK |      | Siphesihle Mchunu - 491465 | Train |
| 10225 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Siphesihle Mchunu - 491465 | Train |



|       |   |                                                               |  |    |    |                               |       |
|-------|---|---------------------------------------------------------------|--|----|----|-------------------------------|-------|
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 16.0         |  | OK | 16 | Siphesihle Mchunu -<br>491465 | Train |
| 10227 | A | Remove the switch and put back the cover                      |  | OK |    | Siphesihle Mchunu -<br>491465 | Train |
| 10228 | A | Reset the fire detection loop from the<br>DDU                 |  | OK |    | Siphesihle Mchunu -<br>491465 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0          |  | OK | 0  | Siphesihle Mchunu -<br>491465 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0        |  | OK | 17 | Siphesihle Mchunu -<br>491465 | Train |
| 10231 | A | Close the HSCB                                                |  | OK |    | Siphesihle Mchunu -<br>491465 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0 |  | OK | 0  | Siphesihle Mchunu -<br>491465 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0 |  | OK | 0  | Siphesihle Mchunu -<br>491465 | Train |
| 10234 | I | End of Test                                                   |  | OK |    | Siphesihle Mchunu -<br>491465 | Train |



Serial Tests Report  
TS246 – TFS  
RTR Train Functional Static Test Report

Document Reference  
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Version: A0

Emission date  
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## Section 18 – Passenger Doors

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### 18.1 Instructions list

### 18.1.1 050\_DOR-Passenger Doors

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                       | File                                                                              | Result status | Result value | Operator                        | Vehicle |
|-------|------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------|--------------|---------------------------------|---------|
| 10001 | I    | Doors SPP = 050 DOR                                               |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10002 | I    | Initial Conditions                                                |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10003 | I    | All doors should be closed                                        |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10004 | I    | Speed less than 3km/h relay 61K3 is energized                     |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10005 | I    | Start of Test                                                     |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10006 | I    | Uploading procedure:                                              |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10007 | I    | Follow the below instructions to upload software on all the doors |  | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10008 | I    | Doors functional Test TC1 Cab                                     |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10009 | I    | Door authorization not possible in non-active cab                 |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10010 | A    | Remove active cab on TC1                                          |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10011 | A    | Put the door authorization switch 50S7 to DRIVER mode             |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10012 | A    | Press the AUTH LEFT button 50S5                                   |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10013 | R    | Door AUTH LEFT not possible, Lamp 50S5 is OFF                     |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10014 | A    | Press the OPEN LEFT button 50S1                                   |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10015 | R    | OPEN LEFT door not possible, Lamp 50S1 is OFF                     |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10016 | A    | Press the AUTH RIGHT button 50S6                                  |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10017 | R    | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                    |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10018 | A    | Press the OPEN RIGHT button 50S2                                  |                                                                                   | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |

|       |   |                                                                           |                                                                                     |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|---------------------------------|-------|
| 10019 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                            |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10020 | I | Door authorization with active cab                                        |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10021 | A | Activate cab on TC1                                                       |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0      |                                                                                     | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10023 | A | Press and hold the AUTH LEFT button 50S5                                  |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 0.0       |                                                                                     | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10025 | A | Press and hold the OPEN LEFT button 50S1                                  |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0          |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 1.0       |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10028 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour      |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10029 | R | Door safety loop is OPEN, lamp 51H1 is ON                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10030 | A | Press and hold the CLOSE LEFT button 50S3                                 |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorpleftr1 = 1.0      |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlineleft = 1.0     |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10033 | R | Lamp 51H1 is OFF                                                          |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10034 | R | Check on the DDU screen that all left doors are closed and in blue colour |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10035 | A | Press and hold the AUTH RIGHT button 50S6                                 |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10036 | R | Lamp 50S6 is ON                                                           |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1authdoorpbright = 1.0       |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10038 | R | Read Defined Variable [TT]                                                |                                                                                     | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                                                               |                                                                                   |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|---------------------------------|-------|
|       |   | (MPU1)li_dor_tc1opendoorbrightr1 = 0.0                                                                                        |                                                                                   |    |   |                                 |       |
| 10039 | A | Press and hold the OPEN RIGHT button 50S2                                                                                     |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                             |                                                                                   | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                             |                                                                                   | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10042 | R | Check on DDU screen that all right doors are OPEN                                                                             |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10043 | R | Door safety loop is OPEN, lamp 51H1 is ON                                                                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10044 | A | Press and hold the button 50S4 to close all right doors                                                                       |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorbrightr1 = 1.0                                                         |                                                                                   | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlineright = 1.0                                                        |                                                                                   | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10047 | R | Lamp 51H1 is OFF                                                                                                              |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10048 | R | Check on the DDU screen that all right doors are closed and in blue colour                                                    |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10049 | A | Press the AUTH LEFT button 50S5                                                                                               |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10050 | A | Press the OPEN LEFT button 50S1                                                                                               |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10051 | A | Press the AUTH RIGHT button 50S6                                                                                              |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10052 | A | Press the OPEN RIGHT button 50S2                                                                                              |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10053 | R | Take a walk to TC2 on the train, verify that all doors have the light 50H20 lighting in GREEN colour to indicate door is open |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10054 | A | Press the CLOSE LEFT button 50S3                                                                                              |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10055 | A | Press the CLOSE RIGHT button 50S4                                                                                             |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10056 | R | All doors are closed on the DDU screen                                                                                        |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10057 | I | Train speed more than 3km/h TC1                                                                                               |                                                                                   | OK |   | Thandanani Makhanya<br>- 463827 | Train |

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| 10058 | A | Open 61Q1 to switch OFF the OTDR                      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10059 | A | Press the AUTH LEFT button 50S5                       |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10060 | A | Press the OPEN LEFT button 50S1                       |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10061 | A | Press the AUTH RIGHT button 50S6                      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10062 | A | Press the OPEN RIGHT button 50S2                      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10063 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1<br>= 0.0            |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10064 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1<br>= 0.0            |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10065 | R | All left doors are closed                             |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10066 | R | All right doors are closed                            |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10067 | A | Press the AUTH LEFT button 50S5                       |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10068 | A | Press the OPEN LEFT button 50S1                       |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10069 | A | Press the AUTH RIGHT button 50S6                      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10070 | A | Press the OPEN RIGHT button 50S2                      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10071 | R | All doors remain closed                               |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10072 | A | Release [TT]<br>(BCU1)LO_SPEED_THRSLD1                |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10073 | A | Release [TT]<br>(BCU2)LO_SPEED_THRSLD1                |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10074 | I | Doors functional Test TC2 Cab                         |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10075 | I | Door authorization not possible in non-<br>active cab |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10076 | A | Press the AUTH LEFT button 50S5                       |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10077 | R | Door AUTH LEFT not possible, Lamp 50S5<br>is OFF      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10078 | A | Press the OPEN LEFT button 50S1                       |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10079 | R | OPEN LEFT door is not possible, Lamp<br>50S1 is OFF   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10080 | A | Press the AUTH RIGHT button 50S6                      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |

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| 10081 | R | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                        |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10082 | A | Press the OPEN RIGHT button 50S2                                      |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10083 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                        |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10084 | I | Door authorization with active cab                                    |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10085 | A | Activate cab on TC2                                                   |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10086 | A | Set the door authorization switch 50S7 to DRIVER mode in LV1          |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 0.0  |                                                                                     | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10088 | A | Press and hold the AUTH LEFT button 50S5                              |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpleft = 1.0     |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 0.0   |                                                                                     | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10091 | A | Press and hold the OPEN LEFT button 50S1                              |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0      |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 1.0   |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10094 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour  |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10095 | I | Door safety loop is OPEN, lamp 51H1 is ON                             |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10096 | A | Press and hold the CLOSE LEFT button 50S3                             |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0 |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpleftr1 = 1.0  |                                                                                     | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10099 | R | Lamp 51H1 is OFF                                                      |                                                                                     | OK |   | Thandanani Makhanya<br>- 463827 | Train |



|       |   |                                                                                                                               |                                                                                    |    |   |                                 |       |
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| 10100 | R | Check on the DDU screen that all left doors are closed and in blue colour                                                     |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10101 | A | Press and hold and hold the AUTH RIGHT button 50S6                                                                            |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpbright = 1.0                                                           |                                                                                    | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 0.0                                                          |                                                                                    | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10104 | A | Press and hold the OPEN RIGHT button 50S2                                                                                     |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 1.0                                                          |                                                                                    | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10106 | R | Check on DDU screen that all right doors are OPEN                                                                             |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10107 | I | Door safety loop is OPEN, lamp 51H1 is ON                                                                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10108 | R | Press the CLOSE RIGHT button 50S4                                                                                             |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0                                                         |                                                                                    | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpbright1 = 1.0                                                         |                                                                                    | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10111 | R | Lamp 51H1 is OFF                                                                                                              |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10112 | R | Check on the DDU screen that all right doors are closed and in blue colour                                                    |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10113 | A | Press the AUTH LEFT button 50S5                                                                                               |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10114 | A | Press the OPEN LEFT button 50S1                                                                                               |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10115 | A | Press the AUTH RIGHT button 50S6                                                                                              |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10116 | A | Press the OPEN RIGHT button 50S2                                                                                              |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10117 | R | Take a walk to TC1 on the train, verify that all doors have the light 50H20 lighting in GREEN colour to indicate door is open |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10118 | A | Press the CLOSE LEFT button 50S3                                                                                              |                                                                                    | OK |   | Thandanani Makhanya<br>- 463827 | Train |

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| 10119 | A | Press the CLOSE RIGHT button 50S4                                                                                 |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10120 | R | All doors are closed on the DDU screen                                                                            |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10121 | I | Train speed more than 3km/h TC2                                                                                   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10122 | A | Open 61Q1 to switch OFF the OTDR                                                                                  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10123 | A | Press the AUTH LEFT button 50S5                                                                                   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10124 | A | Press the OPEN LEFT button 50S1                                                                                   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10125 | A | Press the AUTH RIGHT button 50S6                                                                                  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10126 | A | Press the OPEN RIGHT button 50S2                                                                                  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10127 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1<br>= 0.0                                                                        |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10128 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1<br>= 0.0                                                                        |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10129 | R | All left doors are closed                                                                                         |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10130 | R | All right doors are closed                                                                                        |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10131 | A | Press the AUTH LEFT button 50S5                                                                                   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10132 | A | Press the OPEN LEFT button 50S1                                                                                   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10133 | A | Press the AUTH RIGHT button 50S6                                                                                  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10134 | A | Press the OPEN RIGHT button 50S2                                                                                  |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10135 | R | All doors remain closed                                                                                           |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10136 | A | Release [TT]<br>(BCU1)LO_SPEED_THRSLD1                                                                            |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10137 | A | Release [TT]<br>(BCU2)LO_SPEED_THRSLD1                                                                            |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10138 | A | Close 61Q1 circuit breaker                                                                                        |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10139 | I | Door Obstacle Detection                                                                                           |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10140 | I | This test is to verify if the CCTV footage<br>will display on the DDU when an obstacle<br>is detected at any door |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10141 | A | Press the DOOR AUTH left button 50S5                                                                              |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |

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| 10142 | A | Press the button 50S1 to open left doors                                          |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10143 | A | Place an obstacle at the centre of any of the open doors                          |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10144 | A | Close the left doors                                                              |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10145 | I | The door with an obstacle will attempt to close 3 times                           |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10146 | R | The door with an obstacle appears in white colour on the DDU screen               |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10147 | A | Remove the obstacle                                                               |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10148 | A | Open and close left doors                                                         |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10149 | R | The door which had the obstacle appears closed on the DDU and it's in blue colour |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10150 | I | Door Manual Opening                                                               |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10151 | A | All doors should be closed including the door covers in each saloon               |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10152 | I | TC1                                                                               |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10153 | A | Put the switch 50S7 in DRIVER mode                                                |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10154 | A | Try to manually open ALL TC1 DOORS                                                |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10155 | R | It is not possible to manually open any of the doors                              |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10156 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA          |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10157 | R | DOOR1 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 110 | Thandanani Makhanya<br>- 463827 | Train |
| 10158 | R | DOOR2 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 109 | Thandanani Makhanya<br>- 463827 | Train |
| 10159 | R | DOOR3 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 112 | Thandanani Makhanya<br>- 463827 | Train |
| 10160 | R | DOOR4 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 99  | Thandanani Makhanya<br>- 463827 | Train |
| 10161 | R | DOOR5 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 101 | Thandanani Makhanya<br>- 463827 | Train |
| 10162 | R | DOOR6 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 98  | Thandanani Makhanya<br>- 463827 | Train |
| 10163 | A | Manually open the doors                                                           |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10164 | R | Doors opens freely                                                                |                                                                                   | OK |     | Thandanani Makhanya<br>- 463827 | Train |

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| 10165 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10166 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10167 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10168 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10171 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10172 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10173 | R | The TC1 doors remains open                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10174 | A | Press the button 54S3 to acknowledge<br>PEAs                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10175 | A | Reset the PEA using switch 44S6                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10176 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10177 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10178 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10179 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10180 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10181 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10182 | R | The TC1 doors closes                                              |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10183 | A | Activate the lockout device on ALL TC1<br>Doors                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10184 | R | Doors of TC1 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10185 | A | Try to manually open the doors                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10186 | R | It is not possible to open any of the doors                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10187 | A | Pull the PEAs                                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

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| 10188 | A | Try to manually open the doors                                           |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10189 | R | It is not possible to open any of the doors                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10190 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10191 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10192 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10193 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10194 | R | All Train doors are open except for TC1 doors                            |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10196 | A | Release the lockout devices                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10197 | A | Reset the PEAs using the switch 44S6                                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10198 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10199 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10200 | R | Doors appears as Closed on the DDU screen                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0   | Thandanani Makhanya<br>- 463827 | Train |
| 10202 | I | M4 car                                                                   |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10203 | A | Try to manually open ALL M4 DOORS                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10204 | R | It is not possible to manually open any of the doors                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10205 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10206 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 110 | Thandanani Makhanya<br>- 463827 | Train |
| 10207 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 113 | Thandanani Makhanya<br>- 463827 | Train |
| 10208 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 103 | Thandanani Makhanya<br>- 463827 | Train |
| 10209 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 110 | Thandanani Makhanya<br>- 463827 | Train |
| 10210 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 113 | Thandanani Makhanya<br>- 463827 | Train |

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| 10211 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 114 | Thandanani Makhanya<br>- 463827 | Train |
| 10212 | A | Manually open the doors                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10213 | R | Doors opens freely                                               |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10214 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10215 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10216 | A | Press the OPEN LEFT button 50S1                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10217 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorright = 1.0 |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorleft = 1.0  |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10220 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10221 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10222 | R | The M4 doors remains open                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10223 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10224 | A | Reset the PEA using switch 44S6                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10225 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10226 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10227 | A | Press the OPEN LEFT button 50S1                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10228 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10229 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10230 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10231 | R | The M4 doors closes                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10232 | A | Activate the lockout device on ALL M4<br>Doors                   |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10233 | R | Doors of M4 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10234 | A | Try to manually open the doors                                   |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                          |  |    |     |                                 |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|---------------------------------|-------|
| 10235 | R | It is not possible to open any of the doors                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10236 | A | Pull the PEAs                                                            |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10237 | A | Try to manually open the doors                                           |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10238 | R | It is not possible to open any of the doors                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10239 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10240 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10241 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10242 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10243 | R | All Train doors are open except for M4 doors                             |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10244 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10245 | A | Release the lockout devices                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10246 | A | Reset the PEAs using the switch 44S6                                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10247 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10248 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10249 | R | Doors appears as Closed on the DDU screen                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0   | Thandanani Makhanya<br>- 463827 | Train |
| 10251 | I | M1 car                                                                   |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10252 | A | Try to manually open ALL M1 DOORS                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10253 | R | It is not possible to manually open any of the doors                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10254 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10255 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 110 | Thandanani Makhanya<br>- 463827 | Train |
| 10256 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 114 | Thandanani Makhanya<br>- 463827 | Train |
| 10257 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 103 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                  |  |    |     |                                 |       |
|-------|---|------------------------------------------------------------------|--|----|-----|---------------------------------|-------|
| 10258 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 101 | Thandanani Makhanya<br>- 463827 | Train |
| 10259 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 98  | Thandanani Makhanya<br>- 463827 | Train |
| 10260 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 103 | Thandanani Makhanya<br>- 463827 | Train |
| 10261 | A | Manually open the doors                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10262 | R | Doors opens freely                                               |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10263 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10264 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10265 | A | Press the OPEN LEFT button 50S1                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10266 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m1opendoorright = 1.0 |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10269 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10270 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10271 | R | The M1 doors remains open                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10272 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10273 | A | Reset the PEA using switch 44S6                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10274 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10275 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10276 | A | Press the OPEN LEFT button 50S1                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10277 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10278 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10279 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10280 | R | The M1 doors closes                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10281 | A | Activate the lockout device on ALL M1<br>Doors                   |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |



|       |   |                                                                          |  |    |     |                                 |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|---------------------------------|-------|
| 10282 | R | Doors of M1 appear as OUT OF SERVICE on DDU screen                       |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10283 | A | Try to manually open the doors                                           |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10284 | R | It is not possible to open any of the doors                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10285 | A | Pull the PEAs                                                            |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10286 | A | Try to manually open the doors                                           |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10287 | R | It is not possible to open any of the doors                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10288 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10289 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10290 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10291 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10292 | R | All Train doors are open except for M1 doors                             |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10293 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10294 | A | Release the lockout devices                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10295 | A | Reset the PEAs using the switch 44S6                                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10296 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10297 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10298 | R | Doors appears as Closed on the DDU screen                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0   | Thandanani Makhanya<br>- 463827 | Train |
| 10300 | I | M2 car                                                                   |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10301 | A | Try to manually open ALL M2 DOORS                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10302 | R | It is not possible to manually open any of the doors                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10303 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10304 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 110 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                  |  |    |     |                                 |       |
|-------|---|------------------------------------------------------------------|--|----|-----|---------------------------------|-------|
| 10305 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 104 | Thandanani Makhanya<br>- 463827 | Train |
| 10306 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 99  | Thandanani Makhanya<br>- 463827 | Train |
| 10307 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 102 | Thandanani Makhanya<br>- 463827 | Train |
| 10308 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 101 | Thandanani Makhanya<br>- 463827 | Train |
| 10309 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 105 | Thandanani Makhanya<br>- 463827 | Train |
| 10310 | A | Manually open the doors                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10311 | R | Doors opens freely                                               |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10312 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10313 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10314 | A | Press the OPEN LEFT button 50S1                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10315 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorright = 1.0 |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10318 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10319 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10320 | R | The M2 doors remains open                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10321 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10322 | A | Reset the PEA using switch 44S6                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10323 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10324 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10325 | A | Press the OPEN LEFT button 50S1                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10326 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10327 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10328 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10329 | R | The M2 doors closes                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                      |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10330 | A | Activate the lockout device on ALL M2 Doors                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10331 | R | Doors of M2 appear as OUT OF SERVICE on DDU screen                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10332 | A | Try to manually open the doors                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10333 | R | It is not possible to open any of the doors                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10334 | A | Pull the PEAs                                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10335 | A | Try to manually open the doors                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10336 | R | It is not possible to open any of the doors                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10337 | A | Press AUTH LEFT BUTTON 50S5                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10338 | A | Press AUTH RIGHT BUTTON 50S6                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10339 | A | Press the OPEN LEFT button 50S1                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10340 | A | Press the OPEN RIGHT button 50S2                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10341 | R | All Train doors are open except for M2 doors                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10342 | A | Press the button 54S3 to acknowledge PEA                             |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10343 | A | Release the lockout devices                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10344 | A | Reset the PEAs using the switch 44S6                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10345 | A | Press the CLOSE LEFT button 50S3                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10346 | A | Press the CLOSE RIGHT button 50S4                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10347 | R | Doors appears as Closed on the DDU screen                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10349 | I | M3 car                                                               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10350 | A | Try to manually open ALL M3 DOORS                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10351 | R | It is not possible to manually open any of the doors                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                          |  |    |     |                                 |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|---------------------------------|-------|
| 10352 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10353 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 99  | Thandanani Makhanya<br>- 463827 | Train |
| 10354 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 102 | Thandanani Makhanya<br>- 463827 | Train |
| 10355 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 107 | Thandanani Makhanya<br>- 463827 | Train |
| 10356 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 103 | Thandanani Makhanya<br>- 463827 | Train |
| 10357 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 108 | Thandanani Makhanya<br>- 463827 | Train |
| 10358 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 104 | Thandanani Makhanya<br>- 463827 | Train |
| 10359 | A | Manually open the doors                                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10360 | R | Doors opens freely                                                       |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10361 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10362 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10363 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10364 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorright = 1.0         |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorleft = 1.0          |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10367 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10368 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10369 | R | The M3 doors remains open                                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10370 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10371 | A | Reset the PEA using switch 44S6                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10372 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10373 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10374 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10375 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                   |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10376 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10377 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10378 | R | The M3 doors closes                                               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10379 | A | Activate the lockout device on ALL M3 Doors                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10380 | R | Doors of M3 appear as OUT OF SERVICE on DDU screen                |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10381 | A | Try to manually open the doors                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10382 | R | It is not possible to open any of the doors                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10383 | A | Pull the PEAs                                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10384 | A | Try to manually open the doors                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10385 | R | It is not possible to open any of the doors                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10386 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10387 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10388 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10389 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10390 | R | All Train doors are open except for M3 doors                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10391 | A | Press the button 54S3 to acknowledge PEA                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10392 | A | Release the lockout devices                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10393 | A | Reset the PEAs using the switch 44S6                              |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10394 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10395 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10396 | R | Doors appears as Closed on the DDU screen                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10397 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10398 | I | TC2 car                                                           |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                          |  |    |     |                                 |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|---------------------------------|-------|
| 10399 | A | Try to manually open ALL TC2 DOORS                                       |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10400 | R | It is not possible to manually open any of the doors                     |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10401 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10402 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 105 | Thandanani Makhanya<br>- 463827 | Train |
| 10403 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 110 | Thandanani Makhanya<br>- 463827 | Train |
| 10404 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 99  | Thandanani Makhanya<br>- 463827 | Train |
| 10405 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 102 | Thandanani Makhanya<br>- 463827 | Train |
| 10406 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 98  | Thandanani Makhanya<br>- 463827 | Train |
| 10407 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 103 | Thandanani Makhanya<br>- 463827 | Train |
| 10408 | A | Manually open the doors                                                  |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10409 | R | Doors opens freely                                                       |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10410 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10411 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10412 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10413 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorright = 1.0        |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0         |  | OK | 1   | Thandanani Makhanya<br>- 463827 | Train |
| 10416 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10417 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10418 | R | The TC2 doors remains open                                               |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10419 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10420 | A | Reset the PEA using switch 44S6                                          |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10421 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |
| 10422 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                     |  |    |  |                                 |       |
|-------|---|-----------------------------------------------------|--|----|--|---------------------------------|-------|
| 10423 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10424 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10425 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10426 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10427 | R | The TC2 doors closes                                |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10428 | A | Activate the lockout device on ALL TC2 Doors        |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10429 | R | Doors of TC2 appear as OUT OF SERVICE on DDU screen |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10430 | A | Try to manually open the doors                      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10431 | R | It is not possible to open any of the doors         |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10432 | A | Pull the PEAs                                       |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10433 | A | Try to manually open the doors                      |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10434 | R | It is not possible to open any of the doors         |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10435 | A | Press AUTH LEFT BUTTON 50S5                         |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10436 | A | Press AUTH RIGHT BUTTON 50S6                        |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10437 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10438 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10439 | R | All Train doors are open except for TC2 doors       |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA            |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10441 | A | Release the lockout devices                         |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10442 | A | Reset the PEAs using the switch 44S6                |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10443 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10444 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |
| 10445 | R | Doors appears as Closed on the DDU screen           |  | OK |  | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                                                                                |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0                                                                           |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10447 | I | Door cycle test                                                                                                                                |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10448 | I | This test should be performed at the end of the shift when there is no one who will want to go inside the train and disrupt the test cycle.    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10449 | A | Check all the doors beep when opening and closing                                                                                              |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10450 | A | Check door lights are green when open for all doors                                                                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10451 | A | Check door lights are red when closing from all doors                                                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10452 | A | Launch the door cycle test from the DDU                                                                                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10453 | I | At the beginning of the next shift (test should be left to run overnight), all doors should still be able to open and close without any issues |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10454 | R | Door cycle test is successful                                                                                                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10455 | I | End Test                                                                                                                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |





|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 19 – Traction Interlock

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### 19.1 Instructions list

### 19.1.1 031\_TRC-Traction Interlock

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                          | File | Result status | Result value | Operator              | Vehicle |
|-------|------|----------------------------------------------------------------------|------|---------------|--------------|-----------------------|---------|
| 10001 | I    | Traction Interlock SPP=031                                           |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10002 | I    | Initial Conditions                                                   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10003 | I    | The direction selector switch 30A1.S2 should be in NEUTRAL position  |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10004 | I    | All doors should be closed                                           |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10005 | I    | Emergency brake should be applied                                    |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10006 | I    | PEA override switch should be in NORMAL position                     |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10007 | I    | Traction Interlock override switch 31S1 should be in NORMAL position |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10008 | I    | Backup mode switch 27S1 should be in NORMAL position                 |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10009 | I    | Start of Test                                                        |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10010 | I    | Traction Interlock TC1                                               |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10011 | A    | Active cab on TC1                                                    |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10012 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10013 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                   |      | OK            |              | Carol Gumedé - 425280 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0            |      | OK            | 0            | Carol Gumedé - 425280 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0            |      | OK            | 0            | Carol Gumedé - 425280 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0           |      | OK            | 0            | Carol Gumedé - 425280 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0           |      | OK            | 0            | Carol Gumedé - 425280 | Train   |

|       |   |                                                                            |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10024 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10025 | I | Emergency brake is released                                                |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0       |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0       |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10036 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10037 | I | Emergency brake is released                                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10048 | I | Traction interlock with Doors TC1                                      |  | OK |   | Carol Gumedé - 425280 | Train |
| 10049 | A | Manually open any door                                                 |  | OK |   | Carol Gumedé - 425280 | Train |
| 10050 | R | LED 51H1 is "ON" on alarm module                                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10061 | I | Simulate train speed of 5km/h contactor<br>61K2 is closed              |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10062 | A | Energize point 41 of terminal block<br>93XT104_5 with 110V DC          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10063 | R | The opened door will automatically close                               |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10074 | A | Activate any PEA                                                       |  | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10075 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10076 | I | Speed is greater than 5km/h therefore all doors will remain closed     |  | OK |   | Carol Gumedé - 425280 | Train |
| 10077 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized      |  | OK |   | Carol Gumedé - 425280 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0               |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10088 | A | Reset PEA using switch 44S6                                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0               |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10099 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10100 | A | Activate any PEA                                                       |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10101 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10112 | A | Reset PEA using switch 44S6                                            |  | OK |   | Carol Gumedé -<br>425280 | Train |



|       |   |                                                                     |  |    |   |                       |       |
|-------|---|---------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10113 | A | Close the door opened above manually                                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10114 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized   |  | OK |   | Carol Gumedé - 425280 | Train |
| 10115 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10118 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10119 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10120 | R | Read Defined Variable [TT] (MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10123 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10124 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10125 | A | Press the red button 44S1 to make an emergency brake                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10126 | R | Contactor of 44K12 and 44K11 are de-energized                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10127 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10131 | R | Read Defined Variable [TT] (MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |

|       |   |                                                                                                                           |  |    |   |                          |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                                                |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                                      |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                                      |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                                    |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                                    |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10137 | A | Release the red button 44S1 for<br>emergency brake                                                                        |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10138 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position to reset the<br>emergency brake |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                                                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TlNotInhib = 1.0                                                                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TlNotInhib = 1.0                                                                |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                                                                |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                                                                |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                                                                |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0                                                      |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0                                                      |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                                    |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                                    |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10149 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                                                                        |  | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10150 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10161 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10162 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10173 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10174 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10175 | A | Put the direction selector switch in<br>NEUTRAL Position               |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0               |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0              |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0              |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0              |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                                                                  |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10186 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                                                                   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10187 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                                                                   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10188 | I | Traction Interlock Override TC1                                                                                  |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10189 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position                                                   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10190 | R | A fault code is generated on the DDU<br>screen to inform the driver that the door<br>interlock has been override |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0                                                         |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                                        |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                                       |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0                                                        |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0                                                        |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0                                                        |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 1.0                                           |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 1.0                                           |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10201 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position                                                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0                                                         |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                                        |  | OK | 0 | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                            |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tInotInhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tInotInhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tInotInhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10212 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                             |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10213 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                             |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10214 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10215 | A | Remove active cab on TC1                                                   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10216 | I | Traction Interlock TC2                                                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10217 | A | Active Cab on TC2                                                          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10218 | I | The direction selector switch 30A1.S2<br>should be in NEUTRAL position     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10219 | I | All doors should be closed                                                 |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10220 | I | Emergency brake should be applied                                          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10221 | I | PEA override switch should be in<br>NORMAL position                        |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10222 | I | Traction Interlock override switch 31S1<br>should be in NORMAL position    |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10223 | I | Backup mode switch 27S1 should be in<br>NORMAL position                    |  | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                            |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10224 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                         |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10225 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                         |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10236 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10237 | I | Emergency brake is released                                                |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                            |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10248 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10249 | I | Emergency brake is released                                                |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10258 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10260 | I | Traction Interlock with Doors TC2                                          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10261 | A | Manually open any door                                                     |  | OK |   | Carol Gumedé -<br>425280 | Train |



|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10262 | R | LED 51H1 is "ON" on alarm module                                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10273 | I | Simulate train speed of 5km/h contactor 61K2 is closed                 |  | OK |   | Carol Gumedé - 425280 | Train |
| 10274 | A | Energize point 41 of terminal block 93XT104_5 with 110V DC             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10275 | R | The opened door will automatically close                               |  | OK |   | Carol Gumedé - 425280 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10282 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10286 | A | Activate any PEA                                                       |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10287 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10288 | I | Speed is greater than 5km/h therefore all<br>doors will remain closed  |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10289 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10300 | A | Reset PEA using switch 44S6                                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10307 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10311 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Carol Gumedé - 425280 | Train |
| 10312 | A | Activate any PEA                                                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10313 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10324 | A | Reset PEA using switch 44S6                                            |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10325 | A | Close the door opened above manually                                   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10326 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10337 | A | Press the red button 44S1 to make an<br>emergency brake                |  | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                                           |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0                                  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0                                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0                                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0                                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0                      |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0                      |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0                    |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0                    |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10348 | A | Release the red button 44S1 for<br>emergency brake                                        |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10349 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0                                  |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10351 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0                                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0                                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0                                 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10360 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10361 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10372 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10373 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10380 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10384 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10385 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10386 | A | Put the direction selector switch in<br>NEUTRAL position               |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                        |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10397 | I | Traction Interlock Override TC2                                        |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10398 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position         |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 1.0 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 1.0 |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10405 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10408 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10409 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position           |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Carol Gumedé -<br>425280 | Train |



|       |   |                                                                            |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0                  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0                  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0                  |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10420 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10421 | I | End of Test                                                                |  | OK |   | Carol Gumedé -<br>425280 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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## Section 20 – Deadman

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### 20.1 Instructions list

### 20.1.1 060\_DSD-Deadman

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                               | File                                                                                | Result status | Result value | Operator              | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|-----------------------|---------|
| 10001 | I    | Deadman SPP = 060                                                                         |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10002 | I    | Initial Conditions                                                                        |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10003 | I    | The Traction and Emergency test procedure must be completed prior to performing this test |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10004 | I    | Lamp 60H2 is OFF                                                                          |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10005 | I    | Master Controller is in Neutral position                                                  |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10006 | I    | No Driving Direction selected                                                             |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10007 | I    | Prepare train in LV ready with active cab on TC1                                          |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10008 | I    | Start of Test                                                                             |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10009 | I    | Deadman override TC1                                                                      |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10010 | R    | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                         |                                                                                     | OK            | 0            | Carol Gumedé - 425280 | Train   |
| 10011 | A    | Put the override switch 60S1 to OVERRIDE position                                         |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10012 | R    | Lamp 60H2 is "ON" on the alarm module                                                     |  | OK            |              | Carol Gumedé - 425280 | Train   |
| 10013 | R    | Verify that the Deadman override indication appears on the DDU screen                     |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10014 | R    | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr2 = 1.0                         |                                                                                     | OK            | 1            | Carol Gumedé - 425280 | Train   |
| 10015 | A    | Put the override switch 60S1 to NORMAL position                                           |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10016 | R    | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                         |                                                                                     | OK            | 0            | Carol Gumedé - 425280 | Train   |
| 10017 | R    | Lamp 60H2 is OFF                                                                          |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |

|       |   |                                                                                          |                                                                                     |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10018 | I | Deadman by Master Controller TC1                                                         |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10020 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10022 | A | Release the Master Controller switch 30A1.S4                                             |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10024 | I | Deadman by button 60S3 TC1                                                               |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10026 | A | Press the button 60S3 and hold it while reading variable below                           |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10028 | A | Release the button 60S3                                                                  |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10030 | I | Deadman functional test TC1                                                              |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 0.0                           |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 0.0                        |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0                     |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10034 | A | Select Driving Direction to FORWARD                                                      |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                      |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10036 | I | After 2.5 seconds buzzer starts beeping                                                  |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10037 | R | Lamp 60H1 is ON                                                                          |  | OK |   | Carol Gumedé - 425280 | Train |

|       |   |                                                                                              |                                                                                     |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 1.0                            |                                                                                     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 1.0                               |                                                                                     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10040 | I | A constant push on the button 60S3 or<br>Master controller will result in Emergency<br>brake |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10041 | A | Press and hold down the master controller<br>for about 2s                                    |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10042 | R | Lamp 60H1 is OFF                                                                             |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10043 | R | No sound from buzzer                                                                         |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10044 | A | Release master controller                                                                    |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10045 | I | After 2.5 seconds buzzer starts beeping                                                      |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10046 | R | Lamp 60H1 is ON                                                                              |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10047 | A | Press and hold the button 60S3 for about<br>2s                                               |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10048 | R | Lamp 60H1 is OFF                                                                             |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10049 | R | No sound from buzzer                                                                         |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10050 | A | Release Deadman button 60S3                                                                  |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10051 | I | After 2.5 seconds buzzer starts beeping                                                      |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10052 | R | After 5 seconds, emergency brake is<br>applied                                               |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10053 | R | Verify on the DDU that the Emergency<br>brake by Deadman indication is ON                    |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 =<br>1.0                      |                                                                                     | OK | 1 | Carol Gumedé -<br>425280 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                          |                                                                                     | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10056 | A | Select Driving direction to NEUTRAL and<br>FORWARD again to reset the emergency<br>brake     |                                                                                     | OK |   | Carol Gumedé -<br>425280 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                          |                                                                                     | OK | 0 | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                        |                                                                                     |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10058 | A | Press down the Master controller and hold                              |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10059 | I | After 45s, emergency brake is applied                                  |    | OK |   | Carol Gumedé - 425280 | Train |
| 10060 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0      |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10062 | A | Release the Master controller                                          |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10063 | A | Select the driving direction to NEUTRAL position                       |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)bcu1_tlnb = 0.0                       |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10065 | A | Remove active cab on TC1                                               |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10066 | I | Deadman Override TC2                                                   |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10067 | A | Active cab on TC2                                                      |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10068 | I | Deadman override switch 60S1 must be in NORMAL position                |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10069 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 0.0      |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10070 | A | Put the Deadman override switch 60S1 to OVERRIDE position              |  | OK |   | Carol Gumedé - 425280 | Train |
| 10071 | R | Verify on the DDU that the Deadman override indication is ON           |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10072 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 1.0      |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10073 | R | Lamp 60H2 is ON                                                        |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10074 | A | Put the override switch 60S1 in NORMAL position                        |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2deadmanoverridr1 = 0.0      |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10076 | R | Lamp 60H2 is OFF                                                       |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |

|       |   |                                                                                          |                                                                                     |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10077 | I | Deadman by Master Controller TC2                                                         |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10079 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 1.0                            |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10081 | A | Release the master controller                                                            |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10083 | I | Deadman by button 60S3 TC2                                                               |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10085 | A | Press the button 60S3 and hold it while reading the variable below                       |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 1.0                            |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10087 | A | Release the button 60S3                                                                  |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0                     |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10090 | I | Deadman functional test TC2                                                              |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 0.0                           |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlampr1 = 0.0                        |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10093 | A | Select Driving Direction to FORWARD                                                      |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                     |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10095 | I | After 2.5 seconds buzzer starts beeping                                                  |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10096 | R | lamp 60H1 is ON                                                                          |  | OK |   | Carol Gumedé - 425280 | Train |



|       |   |                                                                                        |                                                                                     |    |   |                       |       |
|-------|---|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10097 | R | Verify on the DDU screen that the Deadman active indication is ON                      |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc2deadmanlampr1 = 1.0                         |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)lo_dsd_tc2dmbuzzerr1 = 1.0                            |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10100 | I | A constant push on the button 60S3 or Master controller will result in Emergency brake |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10101 | A | Press and hold down the master controller for about 2s                                 |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10102 | R | Lamp 60H1 is OFF                                                                       |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10103 | R | No sound from buzzer                                                                   |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10104 | A | Release the master controller                                                          |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)BCU2_TINeb = 0.0                                      |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10106 | R | After 2.5 seconds buzzer starts beeping                                                |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10107 | R | After 5 seconds, emergency brake is applied                                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10108 | R | Verify on the DDU screen that the emergency brake applied by Deadman indication is ON  |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_dsd_tc2ebdeadmanrelayr1 = 1.0                      |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10110 | A | Select Driving direction to NEUTRAL and FORWARD again to reset the emergency brake     |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)BCU2_TINeb = 0.0                                      |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10112 | A | Press down the Master controller and hold                                              |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10113 | R | After 45s, emergency brake is applied                                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10114 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON                 |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10115 | R | Read Defined Variable [TT]                                                             |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |

|       |   |                                                  |  |    |  |                       |       |
|-------|---|--------------------------------------------------|--|----|--|-----------------------|-------|
|       |   | (MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0           |  |    |  |                       |       |
| 10116 | A | Release the Master controller                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10117 | A | Select the driving direction to NEUTRAL position |  | OK |  | Carol Gumedé - 425280 | Train |
| 10118 | I | End of test                                      |  | OK |  | Carol Gumedé - 425280 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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## Section 21 – Rescue Mode and Emergency Disconnection

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### 21.1 Instructions list

### 21.1.1 027\_ERM-Rescue Mode and Emergency Disconnection

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                         | File                                                                                | Result status | Result value | Operator                        | Vehicle |
|-------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|---------------------------------|---------|
| 10001 | I    | Rescue Mode and Emergency Disconnection = SPP 027                                   |                                                                                     | OK            |              | Mphato Mphahlele - 480716       | Train   |
| 10002 | I    | Initial Conditions                                                                  |                                                                                     | OK            |              | Mphato Mphahlele - 480716       | Train   |
| 10003 | I    | Train in Normal mode with LV ready                                                  |                                                                                     | OK            |              | Mphato Mphahlele - 480716       | Train   |
| 10004 | I    | Emergency brake is applied due to no direction selected on Train                    |                                                                                     | OK            |              | Mphato Mphahlele - 480716       | Train   |
| 10005 | I    | The Blue button 27S5 must be released in TC1 and TC2                                |                                                                                     | OK            |              | Mphato Mphahlele - 480716       | Train   |
| 10006 | I    | Start of Test                                                                       |                                                                                     | OK            |              | Mphato Mphahlele - 480716       | Train   |
| 10007 | I    | Back-up Mode TC1                                                                    |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10008 | A    | Put the switch 27S1 in BACKUP position                                              |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10009 | R    | The TCMS is not available on the DDU screen                                         |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10010 | R    | Lamp 27H2 is ON                                                                     |  | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10011 | A    | Timer 60.0 S                                                                        |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10012 | R    | Both pantographs are raised                                                         |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10013 | R    | Both HSCBs are closed                                                               |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10014 | R    | Both ACUs are operational, sound can be heard from outside the train                |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10015 | R    | All four traction units are in operation, sound can be heard from outside the train |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10016 | R    | There is a gradual increase in the main pipe pressure                               |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10017 | R    | HVAC units are operational in all cars                                              |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10018 | R    | Emergency lighting is ON in all cars                                                |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10019 | I    | Emergency Disconnection TC1                                                         |                                                                                     | OK            |              | Mphato Mphahlele - 480716       | Train   |

|       |   |                                                               |  |    |  |                                 |       |
|-------|---|---------------------------------------------------------------|--|----|--|---------------------------------|-------|
| 10020 | A | Push the button 27S5 to disconnect pantographs and open HSCBs |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10021 | R | Both pantographs are lower and HSCBs are open                 |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10022 | A | Release the button 27S5                                       |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10023 | I | Traction authorization TC1                                    |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10024 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10025 | R | TA is authorized                                              |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10026 | R | Lamp 31H1 is ON on the alarm module                           |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10027 | A | Put the direction selector switch in NEUTRAL position         |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10028 | R | TA is not authorized                                          |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10029 | R | Lamp 31H1 is OFF on the alarm module                          |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10030 | I | Doors Operation TC1                                           |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10031 | A | Press the auth button 50S5 to open left doors                 |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10032 | R | Check visually that all left doors are open                   |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10033 | A | Press the auth button 50S6 to open right doors                |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10034 | R | Check visually that all right doors are open                  |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10035 | A | Press the button 50S3 to close all the left doors             |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10036 | R | Check visually that all left doors are closed                 |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10037 | A | Press the button 50S4 to close all right doors                |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10038 | R | Check visually that all right doors are closed                |  | OK |  | Mphato Mphahlele - 480716       | Train |
| 10039 | I | Emergency Brake TC1                                           |  | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10040 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                                                                  |                                                                                     |    |  |                                 |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|---------------------------------|-------|
| 10041 | A | Apply emergency brake using the red button 44S1                                                                  |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10042 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10043 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10044 | A | Release the emergency brake button 44S1                                                                          |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10045 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10046 | A | Apply emergency brake using by putting the Master Controller in Emergency brake position                         |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10047 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10048 | A | Put the Master controller in OFF position                                                                        |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10049 | A | Put the direction selector switch in NEUTRAL position                                                            |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10050 | A | Switch OFF the train by putting the switch 18S1 in OFF position                                                  |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10051 | A | Remove active cab on TC1                                                                                         |                                                                                     | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10052 | I | Back-up Mode TC2                                                                                                 |                                                                                     | OK |  | Mphato Mphahlele - 480716       | Train |
| 10053 | R | Train is OFF                                                                                                     |                                                                                     | OK |  | Mphato Mphahlele - 480716       | Train |
| 10054 | A | Active Cab on TC2                                                                                                |                                                                                     | OK |  | Mphato Mphahlele - 480716       | Train |
| 10055 | A | Switch ON the train using battery contactor 18S1                                                                 |                                                                                     | OK |  | Mphato Mphahlele - 480716       | Train |
| 10056 | R | Train start-up in Normal mode, the TCMS is available on the DDU screen                                           |                                                                                     | OK |  | Mphato Mphahlele - 480716       | Train |
| 10057 | A | Put the backup mode switch 27S1 in BACKUP position                                                               |                                                                                     | OK |  | Mphato Mphahlele - 480716       | Train |
| 10058 | R | The TCMS is no longer available on the DDU screen                                                                |                                                                                     | OK |  | Mphato Mphahlele - 480716       | Train |
| 10059 | R | Lamp 27H2 is ON                                                                                                  |  | OK |  | Mphato Mphahlele - 480716       | Train |

|       |   |                                                                                     |  |    |  |                           |       |
|-------|---|-------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10060 | A | Timer 60.0 S                                                                        |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10061 | R | Both pantographs are raised                                                         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10062 | R | Both HSCBs are closed                                                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10063 | R | Both ACUs are operational, sound can be heard from outside the train                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10064 | R | All four traction units are in operation, sound can be heard from outside the train |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10065 | R | There is a gradual increase in the main pipe pressure                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10066 | R | HVAC units are operational in all cars                                              |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10067 | R | Emergency lighting is ON in all cars                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10068 | I | Traction authorization TC2                                                          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10069 | A | Put the direction selector switch in FORWARD position                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10070 | R | TA is authorized                                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10071 | R | Lamp 31H1 is "ON" on the alarm module                                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10072 | R | Relay 31K1 and 31K2 are energized                                                   |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10073 | A | Put the direction selector switch in NEUTRAL position                               |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10074 | R | TA is not authorized                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10075 | R | Lamp 31H1 is OFF on the alarm module                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10076 | R | Relay 31K1 and 31K2 are de-energized                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10077 | I | Doors Operation TC2                                                                 |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10078 | A | Press the auth button 50S5 to open left doors                                       |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10079 | R | Check visually that all left doors are open                                         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10080 | A | Press the auth button 50S6 to open right doors                                      |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10081 | R | Check visually that all right doors are open                                        |  | OK |  | Mphato Mphahlele - 480716 | Train |



|       |   |                                                                                                                  |  |    |  |                           |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10082 | A | Press the button 50S3 to close all the left doors                                                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10083 | A | Put the direction selector switch in FORWARD position                                                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10084 | R | Check visually that all left doors are closed                                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10085 | A | Press the button 50S4 to close all right doors                                                                   |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10086 | R | Check visually that all right doors are closed                                                                   |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10087 | I | Emergency Brake TC2                                                                                              |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10088 | A | Put the direction selector switch in NEUTRAL and again in FORWARD position to reset the emergency brake          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10089 | A | Apply emergency brake using the red button 44S1                                                                  |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10090 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10091 | R | Release the emergency brake button 44S1                                                                          |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10092 | A | Apply emergency brake using by putting the Master controller in Emergency brake position                         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10093 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10094 | A | Put the Master controller in OFF position                                                                        |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10095 | R | Emergency brake is applied                                                                                       |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10096 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10097 | I | Emergency Disconnection TC2                                                                                      |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10098 | A | Push the button 27S5 to disconnect pantographs and open HSCBs                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10099 | R | Both pantographs are lower and HSCBs are open                                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                 |  |    |  |                           |       |
|-------|---|-----------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10100 | A | Release the button 27S5                                         |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10101 | A | Put the direction selector switch in NEUTRAL position           |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10102 | A | Switch OFF the train by putting the switch 18S1 in OFF position |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10103 | R | Train is OFF                                                    |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10104 | A | Restart the train in Normal mode                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10105 | I | End of Test                                                     |  | OK |  | Mphato Mphahlele - 480716 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 22 – ERTMS

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### 22.1 Instructions list

## 22.1.1 062\_ERTMS-ERTMS

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                       | File                                                                                | Result status | Result value         | Operator                     | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|----------------------|------------------------------|---------|
| 10001 | I    | ERTMS SPP=062                                                                                                     |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10002 | I    | Safety Precautions                                                                                                |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10003 | R    | The ERTMS Warning Signs are attached in both ends underneath                                                      |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10004 | I    | No one should go near the Eurobalise Antennas during the test                                                     |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10005 | I    | ERTMS sim cards installation                                                                                      |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10006 | A    | Record the serial number of the sim card and install the sim cards on MT1 and MT2 cards respectively              |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10007 | R    | Serial number for sim card installed on MT1<br>Result Min : 99999<= x ()                                          |                                                                                     | OK            | 89260420160520001724 | Celiwe Sokhela - 491462      | Train   |
| 10008 | R    | Serial number for sim card installed on MT2<br>Result Min : 99999<= x ()                                          |                                                                                     | OK            | 89260420160520001725 | Celiwe Sokhela - 491462      | Train   |
| 10009 | I    | ERTMS Complete Test                                                                                               |                                                                                     | OK            |                      | Thandanani Makhanya - 463827 | Train   |
| 10010 | I    | Perform the complete static test using the following procedure:                                                   |  | OK            |                      | Thandanani Makhanya - 463827 | Train   |
| 10011 | R    | Static Test is complete                                                                                           |                                                                                     | OK            |                      | Thandanani Makhanya - 463827 | Train   |
| 10012 | I    | ERTMS Functional Test                                                                                             |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10013 | I    | The functional test should only be performed once ALL the software has been loaded and the Complete Test is done. |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10014 | I    | ERTMS Bypass                                                                                                      |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10015 | A    | Activate cab TC1                                                                                                  |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10016 | A    | Put the ERTMS isolation switch 62S1 in ISOLATION position                                                         |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |
| 10017 | R    | The IOS 524 is generated to inform the driver that the ERTMS has been                                             |                                                                                     | OK            |                      | Celiwe Sokhela - 491462      | Train   |

|       |   |                                                                                           |  |    |   |                            |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
|       |   | bypassed in LV1 cubicle on TC1 or TC2                                                     |  |    |   |                            |       |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr1 = 1.0                         |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr2 = 1.0                         |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10020 | R | ERTMS bypass led 62H1 is "ON" on<br>alarm module                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10021 | R | ERTMS HMI is OFF on TC1                                                                   |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10022 | R | ERTMS EVC unit is OFF                                                                     |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10023 | R | The cold movement detector is ON                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10024 | A | Put the direction selector switch in<br>FORWARD position                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10025 | A | Put the Master controller in<br>EMERGENCY BRAKE position                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10026 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10027 | A | Put Master controller in OFF position                                                     |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10028 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10029 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10030 | A | Put the direction selector switch in<br>NEUTRAL position                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10031 | A | Put ERTMS isolation switch 62S1 in<br>NORMAL position                                     |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr1 = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr2 = 0.0                         |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10034 | R | ERTMS bypass led 62H1 is OFF on<br>alarm module                                           |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10035 | R | ERTMS HMI is ON in TC1                                                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                              |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10036 | I | ERTMS Fault Monitoring (SPP M 62/13)                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10037 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10038 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10039 | A | Remove -62XP1_X06 connector                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10040 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdc = 0.0                      |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 0.0                      |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 0.0                    |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsfan = 0.0                     |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10045 | I | TEMPERATURE + FAN                                                            |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10046 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10047 | A | Apply a shunt between pins 42 and 60, pin 78 and 96 on -62XP1_X06 connector. |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10048 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 1.0                    |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsfan = 1.0                     |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10051 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10052 | A | Remove all jumpers and put back the connector -62XP1_X06                     |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10053 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10054 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                 |  |    |   |                            |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsdcdc = 1.0                    |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmstemp = 1.0                    |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10057 | I | 110v/24v converters                                                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10058 | A | Open circuit breaker S01 on ERTMS -<br>62A1 module                              |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10059 | A | In M2 car, open the circuit breaker 25Q6                                        |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10060 | A | Remove one DC/DC power supply                                                   |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10061 | A | In M2 car, close the circuit breaker<br>25Q6                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10062 | A | Close circuit breaker S01 on ERTMS -<br>62A1 module                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsdcdc = 0.0                    |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10064 | A | Open circuit breaker S01 on ERTMS -<br>62A1 module                              |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10065 | A | In M2 car, open the circuit breaker 25Q6                                        |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10066 | A | Put back the DC/DC power supply                                                 |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10067 | I | INTERNAL CIRCUIT BREAKERS                                                       |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10068 | A | In M2 car, close the circuit breaker<br>25Q6                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10069 | A | Close circuit breaker S01 on ERTMS -<br>62A1 module                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10070 | A | Open circuit breaker F01 and close all<br>other circuit breakers from F02 - F20 |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmscb = 0.0                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10072 | A | Close circuit breaker F01 on ERTMS -<br>62A1 module                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmscb = 1.0                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10074 | A | Open circuit breaker S01 on ERTMS -<br>62A1 module                              |  | OK |   | Celiwe Sokhela -<br>491462 | Train |



|       |   |                                                                           |  |    |  |                            |       |
|-------|---|---------------------------------------------------------------------------|--|----|--|----------------------------|-------|
| 10075 | R | ERTMS EVC unit is OFF                                                     |  | OK |  | Celiwe Sokhela -<br>491462 | Train |
| 10076 | A | Normalize everything inside LV4 and<br>leave all circuit breakers closed. |  | OK |  | Celiwe Sokhela -<br>491462 | Train |
| 10077 | I | End of Test                                                               |  | OK |  | Celiwe Sokhela -<br>491462 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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## Section 23 – On-board train data recorder

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### 23.1 Instructions list

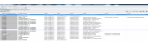
### 23.1.1 061\_REC-OTDR

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                        | File                                                                              | Result status | Result value | Operator                | Vehicle |
|-------|------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Event Recorder SPP= 061                                                                            |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Software must be updated in the OTDR with the latest baseline following below procedure            |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Software must be updated in the CPM according to the latest baseline following the below procedure |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | Train should be OFF                                                                                |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | I    | Start of Test                                                                                      |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | A    | Prepare the train with active cabin on TC1                                                         |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                             |                                                                                   | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                              |                                                                                   | OK            | 2            | Celiwe Sokhela - 491462 | Train   |
| 10010 | I    | Speedometer Test TC1                                                                               |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Remove Active Cabin on TC1 and activate it again                                                   |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | R    | Speedometer lamp is ON                                                                             |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | A    | Force [TT]<br>(MPU1)lo_rec_tc2speedindtest = 1.0                                                   |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10015 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | A    | Release [TT]<br>(MPU1)lo_rec_tc2speedindtest                                                       |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10017 | I    | OTDR Reset                                                                                         |                                                                                   | OK            |              | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                             |  |    |  |                         |       |
|-------|---|-----------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10018 | I | When OTDR is resetting, the power supply LED will go OFF and ON             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10019 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr1 = 1.0                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10020 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr2 = 1.0                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10021 | R | OTDR is OFF                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10022 | I | During OTDR reset, the driver receives a warning about a loss in the OTDR.  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10023 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr1                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10024 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr2                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10025 | I | OTDR is ON and reset                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10026 | I | Data Recording                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10027 | I | Please note the time one the DDU screen before performing the actions below |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10028 | A | Put the Traction Interlock Switch 31S1 in OVERRIDE position                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10029 | A | Put the Traction Interlock Switch 31S1 in NORMAL position                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10030 | A | Pull any PEA on train                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10031 | A | Acknowledge the PEA using the button 54S3                                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10032 | A | Reset PEA using Switch 44S6                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10033 | A | Put the emergency brake loop override switch 44S2 in BYPASS position        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10034 | A | Put the emergency brake loop override switch 44S2 in NORMAL position        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10035 | A | Open HSCB using 22S12                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10036 | A | Put the Direction Selector Switch in FORWARD position                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10037 | A | Put the Direction Selector Switch in NEUTRAL position                       |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                       |  |    |  |                         |       |
|-------|---|-------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10038 | A | Put the Direction Selector Switch in REVERSE position                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10039 | A | Put the Driving Mode Switch to COUPLE/WASH mode                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10040 | A | Before the next step verify that the HSCB is OPEN on the DDU - There is a risk of train movement      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10041 | A | Put the Master Controller in TRACTION position                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10042 | A | Put the Master Controller in BRAKE position                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10043 | A | Put the Master Controller in OFF position                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10044 | A | Put the Direction Selector Switch in NEUTRAL position                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10045 | A | Push the RED Emergency brake button 44S1                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10046 | A | Release Emergency brake button                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10047 | A | Put the Door authorization Selector Switch 50S7 in DRIVER position                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10048 | A | Press the right door authorization button 50S6                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10049 | A | Press the right door open button 50S2 again and then close the door the right doors using button 50S4 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10050 | A | Press the left door authorization button 50S5                                                         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10051 | A | Press the left door open button 50S1 again and then close the door the left doors using button 50S3   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10052 | A | Put the Door authorization Selector Switch 50S7 in ERTMS position                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10053 | A | Put the ERTMS isolation switch 62S1 in ISOLATION position                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10054 | A | Put the ERTMS isolation switch 62S1 in NORMAL position                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10055 | A | Note the time on the DDU                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                                                                                               |                                                                                     |    |  |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10056 | A | Put the backup mode switch 27S1 in BACKUP position                                                                                                                                                            |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10057 | A | Switch OFF the train on TC1 cab                                                                                                                                                                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10058 | A | Put the backup Mode switch in NORMAL position                                                                                                                                                                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10059 | A | Switch active cab to TC2                                                                                                                                                                                      |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10060 | I | Events download                                                                                                                                                                                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10061 | A | Switch ON the train from TC2 side                                                                                                                                                                             |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10062 | A | Note the time on the DDU                                                                                                                                                                                      |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10063 | I | Use the time noted down before and after recording the data to check the events                                                                                                                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10064 | A | Connect to the OTDR via TCMS network and download the two latest events files. See the manual below                                                                                                           |    | OK |  | Celiwe Sokhela - 491462 | Train |
| 10065 | A | Connect to the CPM front face RJ45 port and download the latest events file. See the manual below                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10066 | I | Data Recorded Reading                                                                                                                                                                                         |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10067 | A | Use SAM5 build 81 software to read data recorded from the OTDR. For the CPM use SAM5 build 88                                                                                                                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10068 | I | The recorded data must be in the sequence as logged above. NB time for activation and deactivation of each input must be within the time at which the test was performed. See example below for recorded data |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10069 | R | CAB TC1 ACTIVE: ON                                                                                                                                                                                            |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10070 | R | CAB TC2 ACTIVE: OFF                                                                                                                                                                                           |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10071 | R | TRACTION INTERLOCK BYPASS: ON                                                                                                                                                                                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10072 | R | TRACTION INTERLOCK BYPASS: OFF                                                                                                                                                                                |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10073 | R | BRAKE APPLIED: ON                                                                                                                                                                                             |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10074 | R | PEA LOOP(OTDR): OFF                                                                                                                                                                                           |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10075 | R | PEA LOOP(OTDR): ON                                                                                                                                                                                            |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                                              |  |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10076 | R | EMERGENCY BRAKE LOOP OVERRIDE: OFF                                                                                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10077 | R | EMERGENCY BRAKE LOOP OVERRIDE: ON                                                                                                                            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10078 | R | FORWARD: ON                                                                                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10079 | R | TRACTION: ON                                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10080 | R | BRAKE APPLIED: OFF                                                                                                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10081 | R | NO BRAKE: ON                                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10082 | R | NO BRAKE: OFF                                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10083 | R | FORWARD: OFF                                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10084 | R | TRACTION: OFF                                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10085 | R | REVERSE: OFF                                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10086 | R | REVERSE: ON                                                                                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10087 | R | EMERGENCY BRAKE TRAINLINE: OFF                                                                                                                               |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10088 | R | EMERGENCY BRAKE TRAINLINE: ON                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10089 | R | DOOR AUTH LEFT TRAINLINE: OFF                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10090 | R | DOOR AUTH LEFT TRAINLINE: ON                                                                                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10091 | R | DOOR AUTH RIGHT TRAINLINE: ON                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10092 | R | DOOR AUTH RIGHT TRAINLINE: OFF                                                                                                                               |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10093 | R | ERTMS BYPASS: OFF                                                                                                                                            |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10094 | R | ERTMS BYPASS: ON                                                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10095 | R | BACKUP MODE: OFF                                                                                                                                             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10096 | R | BACKUP MODE: ON                                                                                                                                              |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10097 | R | CAB TC1 ACTIVE: OFF                                                                                                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10098 | R | CAB TC2 ACTIVE: ON                                                                                                                                           |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10099 | A | Save all the downloaded files from CPM and OTDR and put them in a folder named "TSXXX_OTDR." Then save the folder to "teams" channel (shift reports) under a |  | OK |  | Celiwe Sokhela - 491462 | Train |



|       |   |                                                                              |                                                                                     |    |  |                         |       |
|-------|---|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
|       |   | specific trainset folder TSXX>Results files> Train level.<br>XX=train number |                                                                                     |    |  |                         |       |
| 10100 | I | Speedometer Test TC2                                                         |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10101 | A | Remove active cab on TC2 and activate it again                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10102 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s     |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10103 | R | Speedometer lamp is ON                                                       |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10104 | A | Force [TT]<br>(MPU1)lo_rec_tc2speedindtest = 1.0                             |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10105 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s     |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10106 | R | Speedometer lamp is ON                                                       |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10107 | A | Release [TT]<br>(MPU1)lo_rec_tc2speedindtest                                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10108 | I | OTDR settings                                                                |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10109 | A | Force [TT]<br>(MPU2)_REC_TravelledDistanceKm = 10.0                          |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10110 | A | Force [TT]<br>(MPU1)_REC_TravelledDistanceKm = 10.0                          |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10111 | R | The total distance on the odometer of the DDU screen is 10km                 |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10112 | A | Release [TT]<br>(MPU1)_REC_TravelledDistanceKm                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10113 | A | Release [TT]<br>(MPU2)_REC_TravelledDistanceKm                               |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10114 | A | Configure the OTDR and Data plug according to the settings in the file below |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10115 | R | Train UIC is set to 0120XXX                                                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10116 | R | The Wheel diameter is set to 840mm on the DDU Driver screen                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10117 | I | End of Test                                                                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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## Section 24 – External lights and Signaling

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### 24.1 Instructions list

### 24.1.1 072\_SGL-External Visibility

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                               | File                                                                                | Result status | Result value | Operator                  | Vehicle |
|-------|------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|---------------------------|---------|
| 10001 | I    | External Visibility SPP=072                                               |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | Initial Conditions                                                        |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10003 | I    | The air in the main should be at least 7.5bar                             |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10004 | I    | Start of Test                                                             |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10005 | I    | Windscreen wiper TC1                                                      |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10006 | A    | Active cab on TC1                                                         |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10007 | A    | Load the software on the TC1 wiper                                        |    | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10008 | I    | Washer tank is empty                                                      |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10009 | R    | The IOS for low level on water tank appears on the Driver's event list    |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10010 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 0.0              |                                                                                     | OK            | 0            | Mphato Mphahlele - 480716 | Train   |
| 10011 | A    | Fill up the washer tank with clean water                                  |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10012 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 1.0              |                                                                                     | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10013 | R    | No IOS regarding low water level on Driver's event list                   |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10014 | I    | This test is to verify that the Wiper is centred                          |  | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10015 | A    | Put the wiper switch on Wash position                                     |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10016 | R    | Water is spraying on the windscreen; the wiper is cleaning the windscreen |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10017 | A    | Put the wiper switch to intermittent position                             |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |
| 10018 | R    | The wiper is operating properly on intermittent position                  |                                                                                     | OK            |              | Mphato Mphahlele - 480716 | Train   |

|       |   |                                                                                                                                         |                                                                                   |    |   |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|---------------------------|-------|
| 10019 | A | Put the wiper switch to low speed position                                                                                              |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10020 | R | The wiper is operating properly on low speed                                                                                            |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10021 | A | Put the wiper switch to high speed position                                                                                             |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10022 | R | Verify that the wiper does not lie too much on the left or right                                                                        |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10023 | A | Verify that the area wiped is at least as shown in the image attached                                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10024 | A | Put the swiper switch on OFF position                                                                                                   |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10025 | R | Wiper stops, no water is spraying on windscreen                                                                                         |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10026 | I | Mirrors TC1                                                                                                                             |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10027 | A | Login as a Maintainer ID: 70979080                                                                                                      |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10028 | I | It is necessary to open and close each mirror several times to ensure that it is working properly                                       |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10029 | A | Press the DOOR AUTH left button 50S5                                                                                                    |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10030 | A | Turn the switch 70S10 to the left to open the left mirror                                                                               |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 1.0                                                                          |                                                                                   | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                         |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10033 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat |                                                                                   | OK |   | Philemon Milani - 484650  | Train |
| 10034 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10035 | A | Press 50S3 left door close button                                                                                                       |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10036 | R | The mirror is properly closed                                                                                                           |                                                                                   | OK |   | Mphato Mphahlele - 480716 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                          |                                                                                   | OK | 0 | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                                                                  |  |    |   |                              |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                                  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10039 | A | Press the DOOR AUTH right button 50S6                                                                                                            |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10040 | A | Turn the switch 70S10 to the right to<br>open the right mirror                                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                                   |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 1.0                                                                                  |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10043 | A | Check visually that the mirror is open wide<br>enough to show the whole platform and<br>image is not blurry when sitting on the<br>driver's seat |  | OK |   | Philemon Milani -<br>484650  | Train |
| 10044 | R | Verify that there is no leak on the mirror's<br>pneumatic piping                                                                                 |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10045 | A | Press 50S4 right door close button                                                                                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10046 | R | The mirror is properly closed                                                                                                                    |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                                   |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                                  |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10049 | A | Press the DOOR AUTH left button 50S5                                                                                                             |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10050 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror =<br>1.0                                                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10051 | R | Left mirror is open                                                                                                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10052 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror =<br>0.0                                                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10053 | R | Left mirror closes                                                                                                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10054 | A | Press the DOOR AUTH right button 50S6                                                                                                            |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10055 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror<br>= 1.0                                                                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10056 | R | Right mirror opens                                                                                                                               |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10057 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror<br>= 0.0                                                                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                                |                                                                                     |    |  |                           |       |
|-------|---|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|---------------------------|-------|
| 10058 | R | Right mirror closes                                                            |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10059 | A | Press the button 50S3 and 50S4 to reset door authorization                     |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10060 | A | Release [TT] (MPU1)lo_sgl_tc1leftmirror                                        |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10061 | A | Release [TT] (MPU1)lo_sgl_tc1rightmirror                                       |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10062 | A | Isolate the valve H1.5/1 and H1.5/2                                            |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10063 | R | Check that the left and right mirrors can be folded manually                   |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10064 | A | Normalise the valve H1.5/1 and H1.5/2                                          |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10065 | A | Login on the DDU screen using the driver's code 70787878                       |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10066 | A | Go to Command Screen                                                           |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10067 | A | Authorise OPEN DOOR LEFT and RIGHT using the button 50S5 and 50S6 respectively |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10068 | A | On the DDU Command screen, open the left mirror using the virtual button       |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10069 | R | Left mirror opens                                                              |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10070 | A | Press virtual button to open right mirror                                      |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10071 | R | Right mirror opens                                                             |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10072 | A | Press the button 50S3 and 50S4 to reset door authorization                     |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10073 | R | Both mirrors close                                                             |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10074 | A | Remove active cab on TC1                                                       |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10075 | I | External visibility TC2                                                        |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10076 | I | Windscreen wiper TC2                                                           |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10077 | A | Active cab on TC2                                                              |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |
| 10078 | I | Load the software on the TC2 wiper                                             |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10079 | I | Washer tank is empty                                                           |                                                                                     | OK |  | Mphato Mphahlele - 480716 | Train |



|       |   |                                                                                  |                                                                                     |    |   |                           |       |
|-------|---|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|---------------------------|-------|
| 10080 | R | The IOS for low level on water tank appears on the Driver's event list           |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1) Li_SGL_Tc2WasherLevel = 0.0                    |                                                                                     | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10082 | A | Fill up the washer tank with clean water                                         |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1) Li_SGL_Tc2WasherLevel = 1.0                    |                                                                                     | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10084 | R | No IOS regarding low water level on Driver's event list                          |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10085 | I | This test is to verify that the Wiper is centred                                 |    | OK |   | Mphato Mphahlele - 480716 | Train |
| 10086 | A | Put the swiper switch on Wash position                                           |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10087 | R | Water is spraying on the windscreen, the wiper is cleaning the windscreen        |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10088 | A | Put the wiper switch to intermittent position                                    |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10089 | R | The wiper is operating properly on intermittent position                         |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10090 | A | Put the wiper switch to low speed position                                       |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10091 | R | The wiper is operating properly on low speed                                     |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10092 | A | Put the wiper switch to high speed position                                      |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10093 | A | Verify that the wiper does not lie too much on the left or right                 |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10094 | R | Verify that the area wiped is at least as shown in the image above               |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10095 | A | Put the wiper switch on OFF position                                             |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10096 | R | Wiper stops, no water is spraying on windscreen                                  |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10097 | I | Mirrors TC2                                                                      |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10098 | A | Login as a Driver. ID:70787878                                                   |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |
| 10099 | I | It is necessary to open and close each mirror several times to ensure that it is |                                                                                     | OK |   | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                                                                         |  |    |   |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
|       |   | working properly                                                                                                                        |  |    |   |                           |       |
| 10100 | A | Press the DOOR AUTH left button 50S5                                                                                                    |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10101 | A | Turn the switch 70S10 to the left to open the left mirror                                                                               |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 1.0                                                                          |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                                                                         |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10104 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10105 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10106 | A | Press 50S3 left door close button                                                                                                       |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10107 | R | The mirror is properly closed                                                                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                                                                          |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                                                                         |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10110 | A | Press the DOOR AUTH right button 50S6                                                                                                   |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10111 | A | Turn the switch 70S10 to the right to open the right mirror                                                                             |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                                                                          |  | OK | 0 | Mphato Mphahlele - 480716 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 1.0                                                                         |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10114 | A | Check visually that the mirror is open wide enough to show the whole platform and image is not blurry when sitting on the driver's seat |  | OK |   | Philemon Milani - 484650  | Train |
| 10115 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10116 | A | Press 50S4 right door close button                                                                                                      |  | OK |   | Mphato Mphahlele - 480716 | Train |
| 10117 | R | The mirror is properly closed                                                                                                           |  | OK |   | Mphato Mphahlele - 480716 | Train |

|       |   |                                                                                      |  |    |   |                              |       |
|-------|---|--------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                      |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |
| 10120 | A | Press the DOOR AUTH left button 50S5                                                 |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10121 | A | Force [TT] (MPU1)lo_sgl_tc2leftmirror =<br>1.0                                       |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10122 | R | Left mirror is open                                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10123 | A | Force [TT] (MPU1)lo_sgl_tc2leftmirror =<br>0.0                                       |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10124 | R | Left mirror closes                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10125 | A | Press the DOOR AUTH right button 50S6                                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10126 | A | Force [TT] (MPU1)lo_sgl_tc2rightmirror<br>= 1.0                                      |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10127 | R | Right mirror opens                                                                   |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10128 | A | Force [TT] (MPU1)lo_sgl_tc2rightmirror<br>= 0.0                                      |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10129 | R | Right mirror closes                                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10130 | A | Release [TT] (MPU1)lo_sgl_tc2leftmirror                                              |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10131 | A | Release [TT]<br>(MPU1)lo_sgl_tc2rightmirror                                          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10132 | A | Press the button 50S3 and 50S4 to reset<br>door authorization                        |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10133 | A | Isolate the valve H1.5/1 and H1.5/2                                                  |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10134 | A | Check that the left and right mirrors can<br>be folded manually                      |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10135 | A | Normalise the valve H1.5/1 and H1.5/2                                                |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10136 | A | Login on the DDU screen using the<br>driver's code 70787878                          |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10137 | A | Go to Command Screen                                                                 |  | OK |   | Mphato Mphahlele -<br>480716 | Train |
| 10138 | A | Authorise OPEN DOOR LEFT and RIGHT<br>using the button 50S5 and 50S6<br>respectively |  | OK |   | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                          |                                                                                   |    |  |                           |       |
|-------|---|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|---------------------------|-------|
| 10139 | A | On the DDU Command screen, open the left mirror using the virtual button |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10140 | R | Left mirror opens                                                        |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |
| 10141 | A | Press virtual button to open right mirror                                |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10142 | R | Right mirror opens                                                       |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |
| 10143 | A | Press the button 50S2 and 50S4 to close the left and right doors         |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |
| 10144 | R | Both mirrors close                                                       |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |
| 10145 | I | End of test                                                              |                                                                                   | OK |  | Mphato Mphahlele - 480716 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 25 – Train Ground Communication

### 25.1 Instructions list

#### 25.1.2 064\_NBX-Netbox

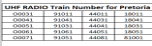
I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                                                                                                                  | File                                                                                | Result status | Result value | Operator                   | Vehicle |
|-------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|----------------------------|---------|
| 10001 | I    | 064 Netbox                                                                                                                                                                                                                                                                   |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | Software upload                                                                                                                                                                                                                                                              |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | I    | Use the below procedure to install the software on the Netbox(M1)                                                                                                                                                                                                            |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | A    | -Open the NBX (64Q1) circuit breaker<br>-Insert the programmed USB into the slot<br>-Close the NBX (64Q1) circuit breaker<br>-Device is on and software upload begins<br><br>Upload is complete when all LEDs on rows A and C are steady, on and green as the image attached |  | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | I    | Netbox configuration check                                                                                                                                                                                                                                                   |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10006 | A    | Perform the attached procedure to configure the Netbox (M1)                                                                                                                                                                                                                  |  | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10007 | R    | The Netbox is configured correctly                                                                                                                                                                                                                                           |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10008 | R    | The time and date on the DDU is correct - if not restart the train and verify again                                                                                                                                                                                          |                                                                                     | OK            |              | Siphesihle Mchunu - 491465 | Train   |

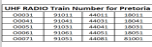
### 25.1.1 063\_UHF\_065\_GSM-UHF and GSM Radio

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                  | File | Result status | Result value         | Operator                  | Vehicle |
|-------|------|------------------------------------------------------------------------------------------------------------------------------|------|---------------|----------------------|---------------------------|---------|
| 10001 | I    | GSMR Radio SPP=065                                                                                                           |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10002 | I    | GSMR - Functional Test TC1                                                                                                   |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10003 | R    | Record the serial number of the sim card and install the sim card on GSMR radio<br>Result Min : 99999<= x ()                 |      | OK            | 89260420160520003642 | Siphehile Mchunu - 491465 | Train   |
| 10004 | A    | Insert the SIM card into the GSMR Radio                                                                                      |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10005 | R    | Ensure the GSM Sim card has been inserted into the GSMR Radio, and there is no red flashing light close to the sim card slot |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10006 | A    | On the GSMR HMI, verify radio is not faulty                                                                                  |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10007 | A    | Active cab in TC1                                                                                                            |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10008 | I    | DDU-HMI Connection                                                                                                           |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10009 | A    | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                           |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10010 | R    | The time is the same (allowable difference of <10s)                                                                          |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10011 | I    | PACIS-HMI Connection                                                                                                         |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10012 | A    | Lift the GSMR handset                                                                                                        |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10013 | A    | Press the PA button on the GSMR HMI                                                                                          |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10014 | R    | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10015 | R    | The PA indication alarm sounds in all cars                                                                                   |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |
| 10016 | A    | Press the PTT on the handset and speak into the handset microphone                                                           |      | OK            |                      | Siphehile Mchunu - 491465 | Train   |

|       |   |                                                                                                                                                |                                                                                   |    |                      |                                 |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----------------------|---------------------------------|-------|
| 10017 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10018 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10019 | I | UHF Radio Test TC1                                                                                                                             |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10020 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10021 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10022 | A | To test the next number, press and hold the off button to switch off the handheld and switch on the handheld again, then enter the new number. |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10023 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10024 | I | GSMR - Functional Test TC2                                                                                                                     |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10025 | A | Active Cab in TC2                                                                                                                              |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10026 | R | Record the serial number of the sim card and install the sim card on GSMR radio<br>Result Min : 99999<= x ()                                   |                                                                                   | OK | 89260420160520003643 | Siphesihle Mchunu - 491465      | Train |
| 10027 | A | Insert the SIM card into the GSMR Radio                                                                                                        |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10028 | R | Ensure the GSM Sim card has been inserted into the GSMR Radio, and there is no red flashing light close to the sim card slot                   |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10029 | A | On the GSMR HMI, verify radio is not faulty                                                                                                    |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10030 | I | DDU-HMI Connection                                                                                                                             |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10031 | A | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                                             |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10032 | R | The time is the same (allowable difference of <10s)                                                                                            |                                                                                   | OK |                      | Siphesihle Mchunu - 491465      | Train |
| 10033 | I | PACIS-HMI Connection                                                                                                                           |                                                                                   | OK |                      | Goitsemodimo Kgatitswe - 526511 | Train |
| 10034 | A | Lift the GSMR handset                                                                                                                          |                                                                                   | OK |                      | Goitsemodimo Kgatitswe - 526511 | Train |



|       |   |                                                                                                                                                |                                                                                   |    |  |                                 |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|---------------------------------|-------|
| 10035 | A | Press the PA button on the GSMR HMI                                                                                                            |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10036 | R | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                                  |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10037 | R | The PA indication alarm sounds in all cars                                                                                                     |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10038 | A | Press the PTT on the handset and speak into the handset microphone                                                                             |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10039 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10040 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10041 | I | UHF Radio Test TC2                                                                                                                             |                                                                                   | OK |  | Siphehile Mchunu - 491465       | Train |
| 10042 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |  | Siphehile Mchunu - 491465       | Train |
| 10043 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                   | OK |  | Siphehile Mchunu - 491465       | Train |
| 10044 | A | To test the next number, press and hold the off button to switch off the handheld and switch on the handheld again, then enter the new number. |                                                                                   | OK |  | Siphehile Mchunu - 491465       | Train |
| 10045 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                   | OK |  | Siphehile Mchunu - 491465       | Train |



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| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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## Section 26 – Traction Converter

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### 26.1 Instructions list

### 26.1.1 033\_TRC-Traction Converter

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                       | File                                                                                | Result status | Result value | Operator                 | Vehicle |
|-------|------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|--------------------------|---------|
| 10001 | I    | Traction and Electric braking SPP=033                                                             |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10002 | I    | Initial Conditions                                                                                |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10003 | I    | Train is prepared with High voltage                                                               |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10004 | I    | Master controller is in OFF position                                                              |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10005 | I    | All traction units are in black colour on the DDU maintenance screen                              |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10006 | I    | Start of Test                                                                                     |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10007 | A    | Put the driving selector switch in FORWARD position                                               |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10008 | R    | Check on the DDU that all traction units are in FWD position                                      |  | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10009 | A    | Put the driving selector switch in REVERSE position                                               |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10010 | R    | Check on the DDU that all traction units are in REV position                                      |  | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10011 | A    | Put the driving selector switch in NEUTRAL position                                               |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10012 | I    | Traction Fault and reset                                                                          |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10013 | A    | Open HSCB using button 22S12                                                                      |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10014 | A    | Open the circuit breaker 33Q3 in M4 car                                                           |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10015 | R    | Traction unit of M4 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10016 | A    | Close the circuit breaker 33Q3                                                                    |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10017 | A    | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |
| 10018 | R    | Traction unit for M4 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK            |              | Tebogo Mtombeni - 529938 | Train   |

|       |   |                                                                                                   |                                                                                     |    |  |                          |       |
|-------|---|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|--------------------------|-------|
| 10019 | A | Open the circuit breaker 33Q3 in M1 car                                                           |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10020 | R | Traction unit of M1 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10021 | A | Close circuit breaker 33Q3 in M1 car                                                              |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10022 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10023 | R | Traction unit for M1 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10024 | A | Open the circuit breaker 33Q3 in M2 car                                                           |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10025 | R | Traction unit of M2 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10026 | A | Close the circuit breaker 33Q3 in M2 car                                                          |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10027 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10028 | R | Traction unit for M2 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10029 | A | Open the circuit breaker 33Q3 in M3 car                                                           |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10030 | R | Traction unit of M3 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10031 | A | Close the circuit breaker 33Q3 in M3 car                                                          |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10032 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10033 | R | Traction unit for M3 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10034 | A | Close HSCBs using button 22S11                                                                    |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |
| 10035 | I | End of Test                                                                                       |                                                                                     | OK |  | Tebogo Mtombeni - 529938 | Train |



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| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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## Section 27 – CCTV Video Information

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### 27.1 Instructions list

### 27.1.1 055\_CCTV-Video Information

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                       | File                                                                                | Result status | Result value | Operator                        | Vehicle |
|-------|------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|---------------------------------|---------|
| 10001 | I    | CCTV SPP=066                                                      |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10002 | I    | Front camera footage TC1                                          |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10003 | A    | Active Cab on TC1 and Login as Driver: 70787878                   |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10004 | A    | Press and hold the FRONT EVENT BUTTON 66S1 on TC1                 |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10005 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 1.0 |                                                                                     | OK            | 1            | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 1.0 |                                                                                     | OK            | 1            | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10007 | R    | The FRONT EVENT button lamp 66S1 is ON                            |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10008 | A    | Release the button 66S1                                           |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |                                                                                     | OK            | 0            | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |                                                                                     | OK            | 0            | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10011 | R    | The FRONT EVENT button lamp 66S1 is OFF                           |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10012 | A    | On the DDU screen, check if the Camera is correctly adjusted      |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10013 | A    | The picture on the DDU should be as the picture attached.         |  | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10014 | I    | Reverse direction front camera functional test TC1                |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10015 | A    | Put the direction selector switch in REVERSE position             |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |
| 10016 | R    | CCTV footage of TC2 front camera appears on the DDU               |                                                                                     | OK            |              | Goitsemodimo Kgatitswe - 526511 | Train   |



|       |   |                                                                |                                                                                     |    |   |                                 |       |
|-------|---|----------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|---------------------------------|-------|
| 10017 | A | Put the direction selector switch in NEUTRAL position          |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10018 | R | CCTV footage of TC2 front camera does not appear on the DDU    |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10019 | A | Remove active cab on TC1                                       |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10020 | I | Front camera footage TC2                                       |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10021 | A | Active cab on TC2 and Login as Driver: 70787878                |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10022 | A | Press and hold the FRONT EVENT BUTTON 66S1 on TC2              |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR1 = 1.0 |                                                                                     | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR2 = 1.0 |                                                                                     | OK | 1 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10025 | R | The FRONT EVENT button lamp 66S1 is ON                         |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10026 | A | Release the button 66S1                                        |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |                                                                                     | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |                                                                                     | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10029 | R | The FRONT EVENT button lamp 66S1 is OFF                        |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10030 | A | On the DDU screen, check if the Camera is correctly adjusted   |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10031 | A | The picture on the DDU should be as the picture attached.      |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10032 | I | Reverse direction front camera functional test TC2             |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10033 | A | Put the direction selector switch in REVERSE position          |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10034 | R | CCTV footage of TC1 front camera appears on the DDU            |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10035 | A | Put the direction selector switch in NEUTRAL position          |                                                                                     | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |

|       |   |                                                                                                                                                                                                                                                  |                                                                                   |    |  |                                 |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|---------------------------------|-------|
| 10036 | R | CCTV footage of TC1 front camera does not appear on the DDU                                                                                                                                                                                      |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10037 | I | NVR Recording                                                                                                                                                                                                                                    |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10038 | A | Ensure that the NVR in both TC1 and TC2 is locked according to the image below (the black box representing the direction of the key). A locked NVR has an OFF HD LED - After locking the NVR it will take some time for the HD LED to switch OFF |  | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10039 | R | The TC1 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10040 | R | The TC2 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10041 | A | Using the procedure attached, confirm that both NVRs are recording video data                                                                                                                                                                    |  | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10042 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR1                                                                                                                                                   |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10043 | R | save the screenshot as TSXX_NVR1                                                                                                                                                                                                                 |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10044 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR2                                                                                                                                                   |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10045 | R | Save the screenshot as TSXX_NVR2                                                                                                                                                                                                                 |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10046 | A | Take the two saved screenshot and put them in a folder named "TSXXX_NVR." Then save the folder to "teams" channel (shift reports) under a specific trainset folder TSXX>Results files> Train level                                               |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |
| 10047 | I | End of Test                                                                                                                                                                                                                                      |                                                                                   | OK |  | Goitsemodimo Kgatitswe - 526511 | Train |



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## Section 28 – PACIS

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### 28.1 Instructions list

### 28.1.1 054\_PIS-Passenger Information System

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                                                                             | File                                                                                | Result status | Result value | Operator              | Vehicle |
|-------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------|--------------|-----------------------|---------|
| 10001 | I    | Pacis system = SPP 054 PIS                                                                                                                                                              |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10002 | I    | Software Upload                                                                                                                                                                         |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10003 | A    |                                                                                                                                                                                         |    | OK            |              | Carol Gumedé - 425280 | Train   |
| 10004 | A    |                                                                                                                                                                                         |    | OK            |              | Carol Gumedé - 425280 | Train   |
| 10005 | A    |                                                                                                                                                                                         |    | OK            |              | Carol Gumedé - 425280 | Train   |
| 10006 | R    | Verify on the DDU, referring to the baseline spreadsheet, that all Pacis devices are updated with the latest software versions                                                          |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10007 | I    | Camera Orientation                                                                                                                                                                      |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10008 | I    | The camera should show at least the complete gangway between two cars, luggage racks, the Interior display as well as the dead zones on the left and right of the doors.                |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10009 | A    | Adjust the saloon cameras according to the image shown below. The Interior display should appear fully on the image as well as up to at least the first 2 doors of the neighbouring car |  | OK            |              | Carol Gumedé - 425280 | Train   |
| 10010 | A    | Please note any cameras showing green strips or unclear images should be updated settings using the attached procedure                                                                  |  | OK            |              | Carol Gumedé - 425280 | Train   |
| 10011 | R    | The Saloon cameras on TC1 have been adjusted according to image above.                                                                                                                  |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10012 | R    | The Saloon cameras on M4 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10013 | R    | The Saloon cameras on M1 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |
| 10014 | R    | The Saloon cameras on M2 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Carol Gumedé - 425280 | Train   |

|       |   |                                                                                         |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10015 | R | The Saloon cameras on M3 have been adjusted according to image above.                   |  | OK |   | Carol Gumedé - 425280 | Train |
| 10016 | R | The Saloon cameras on TC2 have been adjusted according to image above.                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10017 | I | Mission Number Display                                                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10018 | A | Active Cab in TC1                                                                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10019 | A | Login as a driver, ID: 70787878                                                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10020 | A | Enter the mission 8100                                                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10021 | R | Check that the TC1 and TC2 front external displays are showing the mission number 8100. |  | OK |   | Carol Gumedé - 425280 | Train |
| 10022 | I | Public Announcements TC1                                                                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                              |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10025 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Carol Gumedé - 425280 | Train |
| 10026 | R | Green lamp 54H2 is ON                                                                   |  | OK |   | Carol Gumedé - 425280 | Train |
| 10027 | R | A beep sound can be heard in all saloon speakers                                        |  | OK |   | Carol Gumedé - 425280 | Train |
| 10028 | R | On Driver's screen (Home Page), PA activation message is displayed                      |  | OK |   | Carol Gumedé - 425280 | Train |
| 10029 | A | Press the button 54S4 and hold it while talking via the microphone                      |  | OK |   | Carol Gumedé - 425280 | Train |
| 10030 | I | It is necessary to go to each and every speaker to verify sound is coming out           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10031 | R | Announcement can be heard in saloon speakers of TC1                                     |  | OK |   | Carol Gumedé - 425280 | Train |
| 10032 | R | Announcement can be heard in saloon speakers of M4                                      |  | OK |   | Carol Gumedé - 425280 | Train |
| 10033 | R | Announcement can be heard in saloon speakers of M1                                      |  | OK |   | Carol Gumedé - 425280 | Train |

|       |   |                                                                                                                                                                |                                                                                   |    |   |                       |       |
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| 10034 | R | Announcement can be heard in saloon speakers of M2                                                                                                             |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10035 | R | Announcement can be heard in saloon speakers of M3                                                                                                             |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10036 | R | Announcement can be heard in saloon speakers of TC2                                                                                                            |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10037 | A | Release the button 54S4                                                                                                                                        |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10038 | A | Talk on the microphone                                                                                                                                         |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10039 | R | No sound can be heard in all cars                                                                                                                              |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10040 | A | Pulse the switch 54S1 to the right to deactivate PA announcement                                                                                               |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10041 | R | Green lamp 54H2 is OFF                                                                                                                                         |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10042 | A | On the driver's screen (Image attached) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK |   | Carol Gumedé - 425280 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 1.0                                                                                                     |                                                                                   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 1.0                                                                                                     |                                                                                   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10045 | R | Green lamp 54H2 is ON                                                                                                                                          |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10046 | R | PA announcement is activated                                                                                                                                   |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10047 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                             |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                                                                                                     |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                                                                                                     |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10050 | R | Green lamp 54H2 is OFF                                                                                                                                         |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10051 | I | PA announcement is de-activated                                                                                                                                |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10052 | A | Press the button 54S4 and hold it while talking on the microphone                                                                                              |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10053 | R | Sound cannot be heard in all speakers                                                                                                                          |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |

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| 10054 | A | Release the button 54S4                                                                 |  | OK |   | Carol Gumedé - 425280 | Train |
| 10055 | A | Remove active cab on TC1                                                                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10056 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Carol Gumedé - 425280 | Train |
| 10057 | R | Green lamp 54H2 is OFF                                                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10058 | R | No PA announcement activation showing on the Driver's screen                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10059 | I | Cab to Cab Communication TC1                                                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10060 | I | It is not necessary to have an active cab in order to initiate cab to cab communication |  | OK |   | Carol Gumedé - 425280 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                        |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10062 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                        |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10063 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10064 | R | Green lamp 54H1 is blinking                                                             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10065 | R | A beep can be heard in TC2 cab                                                          |  | OK |   | Carol Gumedé - 425280 | Train |
| 10066 | R | Green lamp 54H1 is blinking in TC2 cab                                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10067 | R | Cab to Cab communication is Active on DDU driver's screen                               |  | OK |   | Carol Gumedé - 425280 | Train |
| 10068 | A | Accept Cab to cab communication request in TC2 by pulsing switch 54S1 to the left       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10069 | R | Green lamp 54H1 is ON (steady) on TC2                                                   |  | OK |   | Carol Gumedé - 425280 | Train |
| 10070 | A | Press and hold button 54S4 to initiate communication in TC1 and talk on the microphone  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10071 | R | Sound can be heard on TC2 cab speakers                                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10072 | A | Press and hold button 54S4 in TC2 and talk on the microphone                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10073 | R | Sound can be heard on TC1 cab speakers                                                  |  | OK |   | Carol Gumedé - 425280 | Train |



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| 10074 | A | Pulse the switch 54S1 to the left on TC1 to de-activate cab to cab communication                                                                               |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10075 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10076 | A | On the driver's screen (image attached) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK |   | Carol Gumedé - 425280 | Train |
| 10077 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR1 = 1.0                                                                                               |                                                                                   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 1.0                                                                                               |                                                                                   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10079 | R | Cab-Cab is activated                                                                                                                                           |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10080 | A | On the driver's screen select the "Public Address" virtual button to end communication                                                                         |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10083 | R | Cab-Cab is de-activated                                                                                                                                        |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10084 | I | Cab to Cab Communication TC2                                                                                                                                   |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                                                                                               |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10087 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                                                                                         |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10088 | R | Green lamp 54H1 is blinking                                                                                                                                    |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10089 | R | A beep can be heard in TC1 cab                                                                                                                                 |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10090 | R | Green lamp 54H1 is blinking in TC1 cab                                                                                                                         |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |

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| 10091 | R | Cab to Cab communication is Active on DDU driver's screen                                                                                                      |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10092 | A | Accept Cab to cab communication request in TC1 by pulsing switch 54S1 to the left                                                                              |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10093 | R | Green lamp 54H1 is ON (steady) on TC1                                                                                                                          |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10094 | A | Press and hold button 54S4 to initiate communication in TC2 and talk on the microphone                                                                         |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10095 | R | Sound can be heard on TC1 cab speakers                                                                                                                         |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10096 | A | Press and hold button 54S4 in TC1 and talk on the microphone                                                                                                   |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10097 | R | Sound can be heard on TC2 cab speakers                                                                                                                         |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10098 | A | Pulse the switch 54S1 to the left on TC2 to de-activate cab to cab communication                                                                               |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10099 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10100 | A | On the driver's screen (image attached) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK |   | Carol Gumedé - 425280 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 1.0                                                                                               |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 1.0                                                                                               |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10103 | R | Cab-Cab is activated                                                                                                                                           |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10104 | A | On the driver's screen select the "Public Address" virtual button to end communication                                                                         |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                                                                                               |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                                                                                               |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10107 | R | Cab-Cab is de-activated                                                                                                                                        |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |

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| 10108 | I | Ventilation Rack TC1                                                          |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10109 | A | Follow the instruction below o how to test the ventilation rack               |    | OK |   | Carol Gumedé - 425280 | Train |
| 10110 | R | All three fans of the ventilation rack are working                            |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10111 | I | PEA Functional Test                                                           |    | OK |   | Carol Gumedé - 425280 | Train |
| 10112 | I | All PEAs are normalized on Train                                              |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10113 | I | All doors should be closed                                                    |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10114 | I | Lamp 44H1 is OFF                                                              |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10115 | I | PEI auto test passed in all cars, only one green led can be seen in all PEIs  |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10116 | A | Active cab on TC1 and login as driver: 70787878                               |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10117 | I | All Cameras should be working and properly adjusted                           |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10118 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC1                                |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10119 | A | Pull the PEA                                                                  |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10120 | R | Lamp 44H1 is ON                                                               |  | OK |   | Carol Gumedé - 425280 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealoo = 1.0                       |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10122 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                    |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10123 | R | A Beed can be heard in TC1 cab                                                |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10124 | R | Button lamp 54S3 is BLINKING                                                  |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10125 | R | An emergency alarm announcement can be heard in all saloon speakers           |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10126 | R | Displays INT1 and INT2 indicate "Passenger Alarm" in all saloon cars          |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10127 | R | Lateral displays LAT1 and LAT2 indicate "Passenger Alarm" on the affected car |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |

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| 10128 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10129 | A | Press the button 54S3 to acknowledge PEA communication request                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10130 | A | Press and hold button 54S4 on TC1 and talk on the microphone                      |  | OK |   | Carol Gumedé - 425280 | Train |
| 10131 | R | Message stops broadcasting in all saloon speakers                                 |  | OK |   | Carol Gumedé - 425280 | Train |
| 10132 | R | The person in the cabin can be heard from the PEI speaker                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10133 | A | Respond by talking back via the PEI                                               |  | OK |   | Carol Gumedé - 425280 | Train |
| 10134 | R | Communication is established between PEI and Driver cab                           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10135 | A | Press the button 54S3 to end PEA communication                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10136 | A | Reset PEA using switch 44S6                                                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10137 | R | PEA is reset and a click sound can be heard while PEA returns to its normal state |  | OK |   | Carol Gumedé - 425280 | Train |
| 10138 | A | Open and close doors using buttons on driver desk                                 |  | OK |   | Carol Gumedé - 425280 | Train |
| 10139 | R | All doors are closed and in blue colour on DDU                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10140 | R | Lamp 44H1 is OFF                                                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealoop = 0.0                          |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10142 | R | No CCTV footage showing on Driver's screen                                        |  | OK |   | Carol Gumedé - 425280 | Train |
| 10143 | R | Button lamp 54S3 is OFF                                                           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10144 | R | No message on Pacis displays                                                      |  | OK |   | Carol Gumedé - 425280 | Train |
| 10145 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC1                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10146 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                   |  | OK | 0 | Carol Gumedé - 425280 | Train |

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| 10147 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                                                                                              |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10148 | A | Pull the PEA                                                                                                                                                    |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10149 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                                                                                                      |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10150 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen                                                                                         |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10151 | A | On the driver's screen (image attached) select the "Passenger Alarm" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |  | OK |   | Carol Gumedé - 425280 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 1.0                                                                                              |                                                                                   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 1.0                                                                                              |                                                                                   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10154 | A | Press and hold button 54S4 on TC1 and talk on the microphone                                                                                                    |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10155 | R | The person in the cabin can be heard from the PEI speaker                                                                                                       |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10156 | A | Respond by talking back via the PEI                                                                                                                             |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10157 | R | Communication is stable between PEI and Driver cab                                                                                                              |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10158 | A | On the driver's screen select the "Passenger Alarm" virtual button to end communication                                                                         |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                                                                                              |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                                                                                              |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10161 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC1                                                                                                                  |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10162 | A | Pull the PEA                                                                                                                                                    |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |

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| 10163 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10164 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10165 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10166 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10167 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10168 | A | Respond by talking back via the PEI                                     |  | OK |  | Carol Gumedé - 425280 | Train |
| 10169 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10170 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10171 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC1                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10172 | A | Pull the PEA                                                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10173 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10174 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10175 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10176 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10177 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10178 | A | Respond by talking back via the PEI                                     |  | OK |  | Carol Gumedé - 425280 | Train |
| 10179 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10180 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10181 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC1                          |  | OK |  | Carol Gumedé - 425280 | Train |

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| 10182 | A | Pull the PEA                                                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10183 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10184 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10185 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10186 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10187 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10188 | A | Respond by talking back via the PEI                                     |  | OK |  | Carol Gumedé - 425280 | Train |
| 10189 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10190 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10191 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC1                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10192 | A | Pull the PEA                                                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10193 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10194 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10196 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10197 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10198 | A | Respond by talking back via the PEI                                     |  | OK |  | Carol Gumedé - 425280 | Train |
| 10199 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10200 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |

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| 10201 | I | Call for Aid (CFA 54S5) on TC1                                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10202 | A | Press the SOS button 54S5                                               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10203 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Carol Gumedé - 425280 | Train |
| 10204 | R | No sound can be heard in all saloon speakers                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10205 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars       |  | OK |  | Carol Gumedé - 425280 | Train |
| 10206 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC1           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10207 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10208 | A | Press the button 54S3 to acknowledge SOS communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10209 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10210 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10211 | A | Respond by talking back via the PEI near 54S5                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10212 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10213 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10214 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M4                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10215 | A | Pull the PEA                                                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10216 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10217 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen  |  | OK |  | Carol Gumedé - 425280 | Train |
| 10218 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10219 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |



|       |   |                                                                        |  |    |  |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10220 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10221 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10222 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10223 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10224 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M4                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10225 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10226 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10227 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10228 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10229 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10230 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10231 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10232 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10233 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10234 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M4                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10235 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10236 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10237 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10238 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |  |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10239 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10240 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10241 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10242 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10243 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10244 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M4                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10245 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10246 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10247 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10248 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10249 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10250 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10251 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10252 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10253 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10254 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M4                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10255 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10256 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10257 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10258 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10259 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10260 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Carol Gumedé - 425280 | Train |
| 10261 | A | Respond by talking back via the PEI                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10262 | R | Communication is established between PEI and Driver cab                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10263 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10264 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M4                          |  | OK |   | Carol Gumedé - 425280 | Train |
| 10265 | A | Pull the PEA                                                           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10266 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10267 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Carol Gumedé - 425280 | Train |
| 10268 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10269 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10270 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Carol Gumedé - 425280 | Train |
| 10271 | A | Respond by talking back via the PEI                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10272 | R | Communication is established between PEI and Driver cab                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10273 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10274 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 1.0          |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10275 | A | Reset PEA using switch 44S6                                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10276 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 0.0          |  | OK | 0 | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |  |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10277 | R | All M4 PEAs are reset                                                  |  | OK |  | Carol Gumedé - 425280 | Train |
| 10278 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M1                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10279 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10280 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10281 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10282 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10283 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10284 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10285 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10286 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10287 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10288 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M1                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10289 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10290 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10291 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10292 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10293 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10294 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10295 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |  |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10296 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10297 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10298 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M1                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10299 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10300 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10301 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10302 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10303 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10304 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10305 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10306 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10307 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10308 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M1                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10309 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10310 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10311 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10312 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10313 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10314 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |  |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10315 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10316 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10317 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10318 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M1                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10319 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10320 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10321 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10322 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10323 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10324 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10325 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10326 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10327 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10328 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M1                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10329 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10330 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10331 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10332 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10333 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10334 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Carol Gumedé - 425280 | Train |
| 10335 | A | Respond by talking back via the PEI                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10336 | R | Communication is established between PEI and Driver cab                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10337 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M1StateResetPea = 1.0       |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10339 | A | Reset PEA using switch 44S6                                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M1StateResetPea = 0.0       |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10341 | R | All M1 PEAs are reset                                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10342 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M2                          |  | OK |   | Carol Gumedé - 425280 | Train |
| 10343 | A | Pull the PEA                                                           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10344 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10345 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Carol Gumedé - 425280 | Train |
| 10346 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10347 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10348 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Carol Gumedé - 425280 | Train |
| 10349 | A | Respond by talking back via the PEI                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10350 | R | Communication is established between PEI and Driver cab                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10351 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10352 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M2                          |  | OK |   | Carol Gumedé - 425280 | Train |
| 10353 | A | Pull the PEA                                                           |  | OK |   | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |  |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10354 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10355 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10356 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10357 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10358 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10359 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10360 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10361 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10362 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M2                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10363 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10364 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10365 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10366 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10367 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10368 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10369 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10370 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10371 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10372 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M2                          |  | OK |  | Carol Gumedé - 425280 | Train |



|       |   |                                                                        |  |    |  |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10373 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10374 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10375 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10376 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10377 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10378 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10379 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10380 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10381 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10382 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M2                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10383 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10384 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10385 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10386 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10387 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10388 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10389 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10390 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10391 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10392 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M2                          |  | OK |   | Carol Gumedé - 425280 | Train |
| 10393 | A | Pull the PEA                                                           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10394 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10395 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Carol Gumedé - 425280 | Train |
| 10396 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10397 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10398 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Carol Gumedé - 425280 | Train |
| 10399 | A | Respond by talking back via the PEI                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10400 | R | Communication is established between PEI and Driver cab                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10401 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10402 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 1.0          |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10403 | A | Reset PEA using switch 44S6                                            |  | OK |   | Carol Gumedé - 425280 | Train |
| 10404 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 0.0          |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10405 | R | All M2 PEAs are reset                                                  |  | OK |   | Carol Gumedé - 425280 | Train |
| 10406 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M3                          |  | OK |   | Carol Gumedé - 425280 | Train |
| 10407 | A | Pull the PEA                                                           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10408 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10409 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Carol Gumedé - 425280 | Train |
| 10410 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |  |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10411 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10412 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10413 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10414 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10415 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10416 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M3                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10417 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10418 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10419 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10420 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10421 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10422 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10423 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10424 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10425 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10426 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M3                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10427 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10428 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10429 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |  |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10430 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10431 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10432 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10433 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10434 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10435 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10436 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M3                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10437 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10438 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |
| 10439 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10441 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10442 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10443 | A | Respond by talking back via the PEI                                    |  | OK |  | Carol Gumedé - 425280 | Train |
| 10444 | R | Communication is established between PEI and Driver cab                |  | OK |  | Carol Gumedé - 425280 | Train |
| 10445 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Carol Gumedé - 425280 | Train |
| 10446 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M3                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10447 | A | Pull the PEA                                                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10448 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                        |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10449 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Carol Gumedé - 425280 | Train |
| 10450 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10451 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10452 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Carol Gumedé - 425280 | Train |
| 10453 | A | Respond by talking back via the PEI                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10454 | R | Communication is established between PEI and Driver cab                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10455 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10456 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M3                          |  | OK |   | Carol Gumedé - 425280 | Train |
| 10457 | A | Pull the PEA                                                           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10458 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10459 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Carol Gumedé - 425280 | Train |
| 10460 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10461 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10462 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Carol Gumedé - 425280 | Train |
| 10463 | A | Respond by talking back via the PEI                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10464 | R | Communication is established between PEI and Driver cab                |  | OK |   | Carol Gumedé - 425280 | Train |
| 10465 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10466 | R | Read Defined Variable [TT] (MPU1) Li_UBK_M3StateResetPea = 1.0         |  | OK | 1 | Carol Gumedé - 425280 | Train |
| 10467 | A | Reset PEA using switch 44S6                                            |  | OK |   | Carol Gumedé - 425280 | Train |

|       |   |                                                                            |  |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10468 | R | Read Defined Variable [TT]<br>(MPU1) Li_UBK_M3StateResetPea = 0.0          |  | OK | 0 | Carol Gumedé -<br>425280 | Train |
| 10469 | R | All M3 PEAs are reset                                                      |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10470 | I | Passenger Emergency Alarm 1 (PEA<br>44S11) on TC2                          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10471 | A | Pull the PEA                                                               |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10472 | R | "Wait/Talk" lamp is BLINKING ORANGE<br>on PEI                              |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10473 | R | A CCTV footage of TC2 camera 1 and 2<br>can be seen on the Driver's screen |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10474 | A | Press the button 54S3 to acknowledge<br>PEA communication request          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10475 | A | Press and hold button 54S4 on TC1 and<br>talk on the microphone            |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10476 | R | The person in the cabin can be heard from<br>the PEI speaker               |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10477 | A | Respond by talking back via the PEI                                        |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10478 | R | Communication is established between<br>PEI and Driver cab                 |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10479 | A | Press the button 54S3 to end PEA<br>communication                          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10480 | I | Passenger Emergency Alarm 2 (PEA<br>44S12) on TC2                          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10481 | A | Pull the PEA                                                               |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10482 | R | "Wait/Talk" lamp is BLINKING ORANGE<br>on PEI                              |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10483 | R | A CCTV footage of TC2 camera 1 and 2<br>can be seen on the Driver's screen |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10484 | A | Press the button 54S3 to acknowledge<br>PEA communication request          |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10485 | A | Press and hold button 54S4 on TC1 and<br>talk on the microphone            |  | OK |   | Carol Gumedé -<br>425280 | Train |
| 10486 | R | The person in the cabin can be heard from<br>the PEI speaker               |  | OK |   | Carol Gumedé -<br>425280 | Train |

|       |   |                                                                         |  |    |  |                       |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10487 | A | Respond by talking back via the PEI                                     |  | OK |  | Carol Gumedé - 425280 | Train |
| 10488 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10489 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10490 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC2                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10491 | A | Pull the PEA                                                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10492 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10493 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10494 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10495 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10496 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10497 | A | Respond by talking back via the PEI                                     |  | OK |  | Carol Gumedé - 425280 | Train |
| 10498 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10499 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10500 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC2                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10501 | A | Pull the PEA                                                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10502 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10503 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10504 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10505 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                         |  |    |  |                       |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10506 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10507 | A | Respond by talking back via the PEI                                     |  | OK |  | Carol Gumedé - 425280 | Train |
| 10508 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10509 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10510 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC2                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10511 | A | Pull the PEA                                                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10512 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10513 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10514 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10515 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10516 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10517 | A | Respond by talking back via the PEI                                     |  | OK |  | Carol Gumedé - 425280 | Train |
| 10518 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10519 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10520 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC2                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10521 | A | Pull the PEA                                                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10522 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Carol Gumedé - 425280 | Train |
| 10523 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10524 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Carol Gumedé - 425280 | Train |



|       |   |                                                                         |  |    |  |                       |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10525 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10526 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10527 | A | Respond by talking back via the PEI                                     |  | OK |  | Carol Gumedé - 425280 | Train |
| 10528 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10529 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10530 | I | Call for Aid (CFA 54S5) on TC2                                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10531 | A | Press the SOS button 54S5                                               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10532 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Carol Gumedé - 425280 | Train |
| 10533 | R | No sound can be heard in all saloon speakers                            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10534 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars       |  | OK |  | Carol Gumedé - 425280 | Train |
| 10535 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC2           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10536 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Carol Gumedé - 425280 | Train |
| 10537 | A | Press the button 54S3 to acknowledge SOS communication request          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10538 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Carol Gumedé - 425280 | Train |
| 10539 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Carol Gumedé - 425280 | Train |
| 10540 | A | Respond by talking back via the PEI near 54S5                           |  | OK |  | Carol Gumedé - 425280 | Train |
| 10541 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Carol Gumedé - 425280 | Train |
| 10542 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Carol Gumedé - 425280 | Train |
| 10543 | A | Open and close doors left and right doors                               |  | OK |  | Carol Gumedé - 425280 | Train |

|       |   |                                                                                                                                             |                                                                                     |    |   |                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10544 | R | All doors are closed and in blue colour on DDU                                                                                              |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10545 | I | PEAs functional Test from TC2 cab                                                                                                           |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10546 | I | This is a quick test to verify that all PEAs work and can be reset from TC2                                                                 |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10547 | A | Insert Driver's Key and turn to ON position                                                                                                 |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10548 | A | Login as Driver using the code 70787878                                                                                                     |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10549 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2alldoorsclosedr1 = 0.0                                                                           |                                                                                     | OK | 0 | Carol Gumedé - 425280 | Train |
| 10550 | R |                                                                                                                                             |    | OK |   | Carol Gumedé - 425280 | Train |
| 10551 | A | Pull all the PEAs on Train                                                                                                                  |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10552 | R |                                                                                                                                             |    | OK |   | Carol Gumedé - 425280 | Train |
| 10553 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2alldoorsclosedr1 = 1.0                                                                           |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10554 | R |                                                                                                                                             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10555 | A | Press the button 54S3 to acknowledge PEA communication request, continue to press the button until all but one PEAs have been acknowledged. |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10556 | R | Lamp 44H1 is ON                                                                                                                             |  | OK |   | Carol Gumedé - 425280 | Train |
| 10557 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc2pealoop = 1.0                                                                                    |                                                                                     | OK | 1 | Carol Gumedé - 425280 | Train |
| 10558 | A | Press and hold the button 54S4 while talking on the microphone                                                                              |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10559 | R | The person in the cabin can be heard from the PEI speaker                                                                                   |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10560 | I | It is not necessary to perform step below for all PEAs, one PEA is sufficient                                                               |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10561 | A | Respond by talking back via the PEI                                                                                                         |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10562 | R | Communication is established between PEI and Driver cab                                                                                     |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |
| 10563 | A | Reset all PEAs at using switch 44S6                                                                                                         |                                                                                     | OK |   | Carol Gumedé - 425280 | Train |

|       |   |                                                                                          |                                                                                     |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10564 | R | All PEAs are reset, and a click sound can be heard while PEA returns to its normal state |    | OK |   | Carol Gumedé - 425280 | Train |
| 10565 | A | Open and close doors left and right doors                                                |    | OK |   | Carol Gumedé - 425280 | Train |
| 10566 | R | All doors are closed and in blue colour on DDU                                           |    | OK |   | Carol Gumedé - 425280 | Train |
| 10567 | R | Lamp 44H1 is OFF                                                                         |    | OK |   | Carol Gumedé - 425280 | Train |
| 10568 | R | No message on Pacis displays                                                             |    | OK |   | Carol Gumedé - 425280 | Train |
| 10569 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc2pealoo = 0.0                                  |    | OK | 0 | Carol Gumedé - 425280 | Train |
| 10570 | R | No CCTV footage showing on Driver's screen                                               |    | OK |   | Carol Gumedé - 425280 | Train |
| 10571 | A | On the Event screen, check that there are no IOS related to doors or PEAs recorded       |    | OK |   | Carol Gumedé - 425280 | Train |
| 10572 | R | After test is completed, the DDU PEA screen should be as shown                           |    | OK |   | Carol Gumedé - 425280 | Train |
| 10573 | A | Repeat this test for 4 times                                                             |   | OK |   | Carol Gumedé - 425280 | Train |
| 10574 | R | 1st attempt passed                                                                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10575 | R | 2nd attempt passed                                                                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10576 | R | 3rd attempt passed                                                                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10577 | R | 4th attempt passed                                                                       |  | OK |   | Carol Gumedé - 425280 | Train |
| 10578 | I | Public Announcements TC2                                                                 |  | OK |   | Carol Gumedé - 425280 | Train |
| 10579 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0                               |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10580 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                               |  | OK | 0 | Carol Gumedé - 425280 | Train |
| 10581 | A | Pulse the switch 54S1 to the right to activate PA announcement                           |  | OK |   | Carol Gumedé - 425280 | Train |
| 10582 | R | Green lamp 54H2 is ON                                                                    |  | OK |   | Carol Gumedé - 425280 | Train |
| 10583 | R | A beep sound can be heard in all saloon speakers                                         |  | OK |   | Carol Gumedé - 425280 | Train |
| 10584 | R | On Driver's screen (Home Page), PA activation message is displayed                       |  | OK |   | Carol Gumedé - 425280 | Train |

|       |   |                                                                                                                                                             |                                                                                   |    |   |                       |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10585 | A | Press the button 54S4 and hold it while talking via the microphone                                                                                          |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10586 | R | Announcement can be heard in saloon speakers of all cars                                                                                                    |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10587 | A | Release the button 54S4                                                                                                                                     |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10588 | A | Talk on the microphone                                                                                                                                      |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10589 | R | No sound can be heard in all cars                                                                                                                           |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10590 | A | Pulse the switch 54S1 to the right to de-activate PA announcement                                                                                           |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10591 | A | Green lamp 54H2 is OFF                                                                                                                                      |  | OK |   | Carol Gumedé - 425280 | Train |
| 10592 | A | On the driver's screen (Image above) select the "Public Address" virtual button. (NOTE variables below should be read immediately -they last for 2 seconds) |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10593 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 1.0                                                                                                  |                                                                                   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10594 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 1.0                                                                                                  |                                                                                   | OK | 1 | Carol Gumedé - 425280 | Train |
| 10595 | R | Green lamp 54H2 is ON                                                                                                                                       |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10596 | R | PA announcement is activated                                                                                                                                |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10597 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                          |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10598 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0                                                                                                  |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10599 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                                                                                                  |                                                                                   | OK | 0 | Carol Gumedé - 425280 | Train |
| 10600 | R | Green lamp 54H2 is OFF                                                                                                                                      |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10601 | I | PA announcement is de-activated                                                                                                                             |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10602 | A | Press the button 54S4 and hold it while talking on the microphone                                                                                           |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10603 | R | Sound cannot be heard in all speakers                                                                                                                       |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |
| 10604 | A | Release the button 54S4                                                                                                                                     |                                                                                   | OK |   | Carol Gumedé - 425280 | Train |

|       |   |                                                                                                                                                  |                                                                                   |    |  |                       |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|-----------------------|-------|
| 10605 | A | Remove active cab on TC1                                                                                                                         |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10606 | A | Pulse the switch 54S1 to the right to activate PA announcement                                                                                   |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10607 | R | Green lamp 54H2 is OFF                                                                                                                           |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10608 | R | No PA announcement activation showing on the Driver's screen                                                                                     |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10609 | I | Ventilation Rack TC2                                                                                                                             |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10610 | A | Follow the instruction below o how to test the ventilation rack                                                                                  |  | OK |  | Carol Gumedé - 425280 | Train |
| 10611 | R | All three fans of the ventilation rack are working                                                                                               |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10612 | I | Pacis audio and displays test                                                                                                                    |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10613 | I | This test is aimed at verifying that the Pacis system is working. This includes displays (all LEDs must be working in each display) and speakers |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10614 | A | Launch the Pacis Test from the DDU                                                                                                               |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10615 | R | All saloon speakers and displays are working on train                                                                                            |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10616 | A | Stop the Pacis test                                                                                                                              |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |
| 10617 | I | End of Test                                                                                                                                      |                                                                                   | OK |  | Carol Gumedé - 425280 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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## Section 29 – Dynamic Pre-Test

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### 29.1 Instructions list

### 29.1.1 Pre-DT-Pre-Test

I - Information      A - Action      R - Result      NE - Not Executed

| N°    | Type | Instruction                                                                                                                               | File | Result status | Result value | Operator                | Vehicle |
|-------|------|-------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|--------------|-------------------------|---------|
| 10001 | I    | Dynamic Pre-Test                                                                                                                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Train Normalisation                                                                                                                       |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | A    | Whilst checking the LV cubicles in each Car, also check the dataplug ground cables if they are secured and tightened                      |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | TC1                                                                                                                                       |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | R    | ALL LV1.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | R    | ALL LV2.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | R    | ALL LV7 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | R    | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                                 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | ALL underframe connectors are connected and tightly secured with screws                                                                   |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | ALL inter-car connectors are connected and tightly secured with screws                                                                    |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Take note of the sensor grades captured on HVAC web portal for TC1 and compare them with the ones on the HVAC name plate (ceiling) of Tc1 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | The values of the HVAC sensor grades are the same                                                                                         |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | I    | M4                                                                                                                                        |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | R    | ALL LV3 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10015 | R    | ALL LV6 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |



|       |   |                                                                                                                                         |  |    |  |                         |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10016 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10017 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10018 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10019 | A | Take note of the sensor grades captured on HVAC web portal for M4 and compare them with the ones on the HVAC name plate (ceiling) of M4 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10020 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10021 | I | M1                                                                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10022 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10023 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10024 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10025 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10026 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10027 | A | Take note of the sensor grades captured on HVAC web portal for M1 and compare them with the ones on the HVAC name plate (ceiling) of M1 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10028 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10029 | I | M2                                                                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10030 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10031 | R | ALL LV4 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10032 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                         |  |    |  |                         |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10033 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10034 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10035 | A | Take note of the sensor grades captured on HVAC web portal for M2 and compare them with the ones on the HVAC name plate (ceiling) of M2 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10036 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10037 | I | M3                                                                                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10038 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10039 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10040 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10041 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10042 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10043 | A | Take note of the sensor grades captured on HVAC web portal for M3 and compare them with the ones on the HVAC name plate (ceiling) of M3 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10044 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10045 | I | TC2                                                                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10046 | R | ALL LV1.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10047 | R | ALL LV2.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10048 | R | ALL LV7 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10049 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                           |  |    |  |                         |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10050 | R | ALL underframe connectors are connected and tightly secured with screws                                                                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10051 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10052 | A | Take note of the sensor grades captured on HVAC web portal for TC2 and compare them with the ones on the HVAC name plate (ceiling) of TC2 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10053 | R | The values of the HVAC sensor grades are the same                                                                                         |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10054 | I | Brake Test                                                                                                                                |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10055 | A | Prepare the train in high voltage with active cab on TC1                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10056 | A | On the DDU test screen, run the BRAKE TEST by following the instructions on the screen                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10057 | R | After the BRAKE TEST is complete, all cars have passed                                                                                    |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10058 | A | Shut down the train by putting the battery contactor 18S1 in OFF position                                                                 |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10059 | I | Reduced Power Test                                                                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10060 | A | Prepare the train in high voltage with active cab on TC1                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10061 | A | Set the Driving Mode Switch (30S1) to "DEPOT" position.                                                                                   |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10062 | A | Select the Reduced Power test on the DDU. (select one of the HV devices on the Home screen and access the Reduced Power Test)             |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10063 | A | Select a running direction (Forward or Reverse).                                                                                          |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10064 | I | REMEMBER TO PRESS THE DEAD MAN BUTTON OCCASIONALLY                                                                                        |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10065 | R | Check that all the conditions on the screen are satisfied (green box to the right of each condition)                                      |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10066 | A | Select RPT for M4 car                                                                                                                     |  | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                                  |  |    |          |                         |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|----------|-------------------------|-------|
| 10067 | R | RPT for M4 test successful                                                                                                       |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10068 | A | Close the HSCB                                                                                                                   |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10069 | A | Select RPT for M1car                                                                                                             |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10070 | R | RPT for M1 test successful                                                                                                       |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10071 | A | Close the HSCB                                                                                                                   |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10072 | A | Select RPT for M2 car                                                                                                            |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10073 | R | RPT for M2 test successful                                                                                                       |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10074 | A | Close the HSCB                                                                                                                   |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10075 | A | Select RPT for M3 car                                                                                                            |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10076 | R | RPT for M3 test successful                                                                                                       |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10077 | A | Close the HSCB                                                                                                                   |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10078 | I | Traction Test                                                                                                                    |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10079 | A | WARNING: Do not perform TRACTION TEST when the Reduced Power Test has failed.                                                    |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10080 | A | Prepare the train in high voltage with active cab on TC1                                                                         |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10081 | A | On the DDU Test Screen, press the virtual button TRACTION TEST and ensure that all the requirements are met to execute the test. |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10082 | R | After the Traction Test is complete, there are no traction faults logged on the DDU Event screen                                 |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10083 | I | Load requirements                                                                                                                |  | OK |          | Celiwe Sokhela - 491462 | Train |
| 10084 | R | Read Undefined Variable [TT] SBK_M1CarWeight                                                                                     |  | OK | 36882.68 | Celiwe Sokhela - 491462 | Train |
| 10085 | R | Read Undefined Variable [TT] SBK_M2CarWeight                                                                                     |  | OK | 37799.33 | Celiwe Sokhela - 491462 | Train |
| 10086 | R | Read Undefined Variable [TT] SBK_M3CarWeight                                                                                     |  | OK | 36946.63 | Celiwe Sokhela - 491462 | Train |
| 10087 | R | Read Undefined Variable [TT] SBK_M4CarWeight                                                                                     |  | OK | 36701.52 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                         |  |    |           |                            |       |
|-------|---|-------------------------------------------------------------------------|--|----|-----------|----------------------------|-------|
| 10088 | R | Read Undefined Variable [TT]<br>SBK_Tc1CarWeight                        |  | OK | 35114.95  | Celiwe Sokhela -<br>491462 | Train |
| 10089 | R | Read Undefined Variable [TT]<br>SBK_Tc2CarWeight                        |  | OK | 35449.9   | Celiwe Sokhela -<br>491462 | Train |
| 10090 | A | Calculate the sum of all cars                                           |  | OK |           | Celiwe Sokhela -<br>491462 | Train |
| 10091 | R | The sum of the weight for all cars<br>Result Max : $x \leq 223740$ (kg) |  | OK | 218894.91 | Celiwe Sokhela -<br>491462 | Train |
| 10092 | I | End of Test                                                             |  | OK |           | Celiwe Sokhela -<br>491462 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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| Serial Tests Report<br>TS246 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007243<br>Version: A0 | Emission date<br>19/09/2024 |
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## Section 30 – Report summaries

### 30.1 Results status

| Test Instruction Sheet                  | Compliant | Incomplete | Non-compliant |
|-----------------------------------------|-----------|------------|---------------|
| Train Ground Communication              | X         |            |               |
| Traction Interlock                      | X         |            |               |
| Traction Converter                      | X         |            |               |
| Service Brake                           | X         |            |               |
| Rescue Mode and Emergency Disconnection | X         |            |               |
| Passenger Doors                         | X         |            |               |
| Pantograph                              | X         |            |               |
| PACIS                                   | X         |            |               |
| On-board train data recorder            | X         |            |               |
| Monitoring Circuit Breakers             | X         |            |               |
| Main Circuit Breaker Control            | X         |            |               |
| Internal Lighting                       | X         |            |               |
| Holding and Parking Brake               | X         |            |               |
| High Voltage Distribution               | X         |            |               |
| Fire Detection                          | X         |            |               |
| External lights and Signalling          | X         |            |               |
| ERTMS                                   | X         |            |               |
| Energy Distribution 400V AC             | X         |            |               |
| Energy Distribution 110V                | X         |            |               |
| Emergency Brake Interlock               | X         |            |               |
| Dynamic Pre-Test                        | X         |            |               |
| Driving Command                         | X         |            |               |
| Deadman                                 | X         |            |               |
| Computer Network and DDU Screen         | X         |            |               |
| CCTV Video Information                  | X         |            |               |



|                  |   |  |  |
|------------------|---|--|--|
| Cabin Control    | X |  |  |
| Air Production   | X |  |  |
| Air Conditioning | X |  |  |

## 30.2 Tools used

| Function | Tool name               | Tool number          | Next Calibration date |
|----------|-------------------------|----------------------|-----------------------|
| 019_AIR  | Manometro               | Manometer            | 10/29/2024            |
| 025_NET  | Cable Analyser DSX5000  | Fluke machine_Gibela | 10/30/2024            |
| 040_SBK  | Manometro               | Manometer            | 10/29/2024            |
| 040_SUP  | Manometro               | Manometer            | 10/29/2024            |
| 044_UBK  | Manometro               | Manometer            | 10/29/2024            |
| 045_PBK  | Manometro               | Manometer            | 10/29/2024            |
| 050_DOR  | NContrôleur de pression | Pressure Meter 1     | 10/31/2024            |
| 072_SGL  | Manometro               | Manometer            | 10/29/2024            |

| Vehicle | Equipment | Expected version | Version loaded |
|---------|-----------|------------------|----------------|
| Train   |           |                  |                |