

| PROJECT         | CUSTOMER | TRAIN     |
|-----------------|----------|-----------|
| Xtrapolis-PRASA | PRASA    | 242 – TFS |

RTR Train Functional Static Testing TS242 Report  
GIB0000007075



|           | CREATED       | VERIFIED       | APPROVED        | DISTRIBUTION                                                                                                                                                        |
|-----------|---------------|----------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | Vusumuzi ZULU | 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      | 20/08/2024    | 20/08/2024     | 20/08/2024      | Control Category<br><i>Controlled</i> <i>Not Controlled</i><br><input checked="" type="checkbox"/> <input type="checkbox"/>                                         |
| Signature |               |                |                 | Language<br><b>EN</b>                                                                                                                                               |

This report has been automatically generated from TES version 1

## Table of modifications

| Rev | Date       | Modifications Content | Writer        |
|-----|------------|-----------------------|---------------|
| A0  | 20/08/2024 | Creation              | Vusumuzi ZULU |

## Internal validations

|                 | Name            | Function            | Date       | Signature                                                                               |
|-----------------|-----------------|---------------------|------------|-----------------------------------------------------------------------------------------|
| <b>Creator</b>  | Vusumuzi ZULU   | EPU Manager         | 20/08/2024 | X    |
|                 |                 |                     |            | Vusumuzi ZULU<br>EPU Manager                                                            |
| <b>Verifier</b> | Sifiso LUKHELE  | Serial Test Manager | 20/08/2024 | X   |
|                 |                 |                     |            | Sifiso LUKHELE<br>Serial Test Manager                                                   |
| <b>Approver</b> | Kgomotso NKOANA | Test Expert         | 20/08/2024 | X  |
|                 |                 |                     |            | Kgomotso NKOANA<br>Test Expert                                                          |

## Execution Plan

|                   |            |
|-------------------|------------|
| <b>Start Date</b> | 22/08/2024 |
| <b>End Date</b>   | 26/08/2024 |

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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

### 2.2 Instructions list

#### 2.2.1 010\_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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### 3.2 Instructions list

### 3.2.1 015\_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            |              | Sqiniseko Xulu - 493646  | Train   |
| 10002 | I    | Initial Conditions                                                                                                                                                                                                         |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10003 | I    | Train powered in normal mode with only battery power                                                                                                                                                                       |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10004 | A    | Activate Cab on TC1                                                                                                                                                                                                        |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10005 | A    | Close the battery contactor 18S1                                                                                                                                                                                           |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10006 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10007 | R    | After few minutes, the TCMS has successfully initialized on the DDU screen                                                                                                                                                 |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10008 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |  | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10009 | R    | The Battery Voltage on the Voltage line module is 110V                                                                                                                                                                     |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10010 | R    | On the Driver Screen, the battery voltage is the same as in the line module (110V)                                                                                                                                         |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | 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            |              | Nokuzola Mdluli - 491469 | 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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10015 | I    | Power supply check for Equipment on Permanent line                                                                                                                                                                         |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |

|       |   |                                                                                                |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10016 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10017 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10018 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10019 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10020 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10021 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10022 | A | Remove active cab on TC1                                                                       |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10023 | I | Train preparation on TC2 cab                                                                   |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10024 | A | Insert the Driver's Master key on TC2, turn it to ON position and close battery contactor 18S1 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10025 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10026 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10027 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10028 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10029 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10030 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                                                                                  |                                                                                     |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10031 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10032 | R | Train is successfully shutdown                                                                                                                   |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10033 | I | Battery Low Watchdog                                                                                                                             |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | 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 |  | Sqiniseko Xulu - 493646 | Train |
| 10035 | A | On TC2, turn ON the cleaning lights switch 52S6                                                                                                  |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10036 | R | Emergency lighting is ON in all cars                                                                                                             |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10037 | A | Remove the relay 15K1 from its base                                                                                                              |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10038 | R | Emergency lighting is OFF in all cars                                                                                                            |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10039 | A | Put back the relay 15K1 on its base                                                                                                              |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10040 | A | Walk to the TC2 CVS Agate compartment and confirm that the CVS Agate is not powered                                                              |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10041 | R | The CVS Agate is OFF                                                                                                                             |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10042 | A | Switch On the train on TC1 side                                                                                                                  |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10043 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10044 | A | Turn the switch 52S6 to switch ON the cleaning lights                                                                                            |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10045 | A | Remove the relay 15K1 from its base                                                                                                              |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10046 | R | The emergency lighting is OFF in all cars                                                                                                        |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10047 | A | Put back the relay on its base                                                                                                                   |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10048 | A | Walk to the TC1 CVS Agate compartment and confirm that the CVS Agate is not powered                                                              |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10049 | R | The CVS Agate is OFF                                                                                                                             |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10050 | I | Train Earthing Procedure                                                                                                                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                              |  |    |  |                         |       |
|-------|---|--------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10051 | R | The train is successfully isolated and earthed.              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10052 | A | Normalize the train                                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10053 | R | The train is normalized.                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10054 | R | Check the IOS status to see if both PANTOS are NOT isolated. |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10055 | I | End of Test                                                  |  | OK |  | Sqiniseko Xulu - 493646 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 4 – Energy Distribution 400V AC

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### 4.2 Instructions list

#### 4.2.1 014\_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            |              | Mvelo Mthembu - 425564       | Train   |
| 10002 | I    | Initial Conditions                                                          |      | OK            |              | Mvelo Mthembu - 425564       | Train   |
| 10003 | I    | TCMS should be working on train                                             |      | OK            |              | Mvelo Mthembu - 425564       | Train   |
| 10004 | I    | No high voltage present on catenary                                         |      | OK            |              | Mvelo Mthembu - 425564       | Train   |
| 10005 | I    | Start of Test                                                               |      | OK            |              | Mvelo Mthembu - 425564       | Train   |
| 10006 | A    | Activate the Cab on TC2                                                     |      | OK            |              | Mvelo Mthembu - 425564       | Train   |
| 10007 | A    | Close the battery contactor 18S1                                            |      | OK            |              | Mvelo Mthembu - 425564       | Train   |
| 10008 | I    | Wait for the TCMS to successfully initialize, then do the steps below       |      | OK            |              | Mvelo Mthembu - 425564       | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 1.0 |      | OK            | 1            | Thandanani Makhanya - 463827 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnectionr1 = 1.0     |      | OK            | 1            | Mvelo Mthembu - 425564       | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1 = 1.0 |      | OK            | 1            | Mvelo Mthembu - 425564       | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc2batteryconnectionr2 = 1.0     |      | OK            | 1            | Mvelo Mthembu - 425564       | Train   |
| 10013 | A    | Trip the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment               |      | OK            |              | Mvelo Mthembu - 425564       | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr1___1 = 0.0 |      | OK            | 0            | Thandanani Makhanya - 463827 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1 = 0.0 |      | OK            | 0            | Thandanani Makhanya - 463827 | Train   |
| 10016 | R    | Read Defined Variable [TT]                                                  |      | OK            | 0            | Thandanani Makhanya - 463827 | Train   |

|       |   |                                                                                |  |    |   |                              |       |
|-------|---|--------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
|       |   | (MPU1)Li_NRG_Tc2DcDcGateDriveR1___1 = 0.0                                      |  |    |   |                              |       |
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2___1 = 0.0        |  | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10018 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10019 | A | Timer 30.0 S                                                                   |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10020 | A | Reset the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment                 |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10021 | A | Trip the Circuit Breaker CC(AL) on TC2 CVS AGATE compartment                   |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 1.0        |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 1.0        |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10024 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10025 | A | Timer 30.0 S                                                                   |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10026 | A | Reset the Circuit Breaker CC(AL) on TC2 CVS AGATE compartment                  |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10027 | A | Activate the Cab on TC1                                                        |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10028 | A | Close the battery contactor 18S1                                               |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10029 | I | Wait for the TCMS to successfully initialize, then do the steps below          |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 1.0    |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnectionr1 = 1.0        |  | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1 = 1.0    |  | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10033 | R | Read Defined Variable [TT]                                                     |  | OK | 1 | Mvelo Mthembu - 425564       | Train |

|       |   |                                                                                |  |    |   |                        |       |
|-------|---|--------------------------------------------------------------------------------|--|----|---|------------------------|-------|
|       |   | (MPU1)lo_nrg_tc2batteryconnectionr2 = 1.0                                      |  |    |   |                        |       |
| 10034 | A | Trip the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                  |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 0.0    |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr2___1 = 0.0    |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1___1 = 0.0        |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2___1 = 0.0        |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10039 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10040 | A | Timer 30.0 S                                                                   |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10041 | A | Reset the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                 |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10042 | A | Trip the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                   |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 1.0        |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 1.0        |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10045 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10046 | A | Timer 30.0 S                                                                   |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10047 | A | Reset the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                  |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10048 | I | Automatic Train Preparation & Auxiliary Converter Status                       |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1automaticstarttr1 = 0.0          |  | OK | 0 | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                                          |                                                                                   |    |   |                           |       |
|-------|---|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|---------------------------|-------|
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr2 = 0.0                                     |                                                                                   | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10051 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr1 = 1.0                                                     |                                                                                   | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10052 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 1.0                                                     |                                                                                   | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10053 | A | Timer 5.0 S                                                                                              |                                                                                   | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                                     |                                                                                   | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr2 = 0.0                                     |                                                                                   | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaulttr2 = 1.0                                    |                                                                                   | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10057 | R | Lamp 18H1 is ON                                                                                          |                                                                                   | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10058 | R | The ACU on TC1 and TC2 are not operational, the ACU appears in Grey colour on the DDU maintenance screen |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 0.0                                  |                                                                                   | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 0.0                                  |                                                                                   | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 0.0                                  |                                                                                   | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 0.0                                  |                                                                                   | OK | 0 | Mvelo Mthembu -<br>425564 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1___1 = 1.0                                 |                                                                                   | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2___1 = 1.0                                 |                                                                                   | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 1.0                                          |                                                                                   | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 1.0                                          |                                                                                   | OK | 1 | Mvelo Mthembu -<br>425564 | Train |

|       |   |                                                                         |                                                                                   |    |   |                              |       |
|-------|---|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|------------------------------|-------|
| 10067 | A | Switch on 3 kV DC on the catenary                                       |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr1 = 1.0         |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr1 = 1.0         |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10072 | R | Aux with reduced performance, lamp 18H1 is OFF                          |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0     |                                                                                   | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10074 | R | Both ACUs are operational                                               |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR1__1 = 1.0  |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2__1 = 1.0  |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1__1 = 1.0  |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2__1 = 1.0  |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10079 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr1                        |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10080 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr2                        |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10081 | I | ACU Isolation and Bypass                                                |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 1.0      |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 1.0      |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |

|       |   |                                                                                      |  |    |   |                              |       |
|-------|---|--------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10084 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position                             |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 1.0                 |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 0.0                   |  | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 1.0                   |  | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10088 | I | The help contactor closes on M2 car                                                  |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 1.0                   |  | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10090 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10091 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position                               |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10092 | A | Press the button 22S12 to open HSCB                                                  |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10093 | R | Button lamp 22S12 is ON                                                              |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10094 | A | Press the button 22S11 to close HSCB                                                 |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10095 | R | Button lamp 22S12 is OFF                                                             |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10096 | R | Both ACUs are operational on DDU Driver's screen                                     |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 0.0                 |  | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                   |  | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10099 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position on TC2                      |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 1.0                 |  | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 1.0                   |  | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 0.0                   |  | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10103 | I | The help contactor closes on M2 car                                                  |  | OK |   | Mvelo Mthembu - 425564       | Train |

|       |   |                                                                                         |  |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 1.0                      |  | OK | 1 | Mvelo Mthembu -<br>425564       | Train |
| 10105 | R | Verify that only one ACU is operational on<br>the DDU, and the help contactor is closed |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10106 | A | Put the switch 18S3 (ACU ISOLATION) to<br>NORMAL position on TC2                        |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10107 | A | Press the button 22S12 to open HSCB                                                     |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10108 | A | Press the button 22S11 to close HSCB                                                    |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10109 | R | Both ACUs are operational on DDU Driver's<br>screen                                     |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0                     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr2 = 0.0                      |  | OK | 0 | Mvelo Mthembu -<br>425564       | Train |
| 10112 | I | ACU Fault simulation                                                                    |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10113 | A | Inside the ACU, switch off the AGATE by<br>tripping ACU circuit breaker in TC1          |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10114 | A | Lamp 18H1 is ON in the alarm module                                                     |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10115 | A | Timer 20.0 S                                                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 1.0                      |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10117 | A | Close the ACU AGATE circuit breaker                                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10118 | A | Timer 30.0 S                                                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10119 | A | Open HSCB                                                                               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                      |  | OK | 0 | Mvelo Mthembu -<br>425564       | Train |
| 10121 | A | Close HSCB                                                                              |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10122 | R | Lamp 18H1 is OFF in the alarm module                                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10123 | A | Inside the ACU, switch off the AGATE by<br>tripping ACU circuit breaker in TC2          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10124 | A | Lamp 18H1 is ON in the alarm module                                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10125 | A | Timer 20.0 S                                                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                          |                                                                                   |    |   |                              |       |
|-------|---|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|------------------------------|-------|
| 10126 | A | Close the ACU AGATE circuit breaker                                                      |                                                                                   | OK |   | Thandanani Makhanya - 463827 | Train |
| 10127 | A | Timer 30.0 S                                                                             |                                                                                   | OK |   | Thandanani Makhanya - 463827 | Train |
| 10128 | A | Open HSCB                                                                                |                                                                                   | OK |   | Thandanani Makhanya - 463827 | Train |
| 10129 | A | Close HSCB                                                                               |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10130 | I | Verifying Aux Converter Output                                                           |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10131 | A | Put the switch 18S3 (ACU ISOLATION) to ISOLATION position on TC1 and TC2                 |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10132 | I | ACU stops working in TC1 and TC2 car                                                     |                                                                                   | OK |   | Thandanani Makhanya - 463827 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                       |                                                                                   | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10134 | R | Lamp 18H1 is ON in the alarm module                                                      |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10135 | I | This test is performed to verify that the ACUs can supply all the loads without tripping |                                                                                   | OK |   | Thandanani Makhanya - 463827 | Train |
| 10136 | A | Open the circuit breaker 19Q2 on TC1                                                     |                                                                                   | OK |   | Thandanani Makhanya - 463827 | Train |
| 10137 | A | Open the circuit breaker 57Q1 for all HVAC units                                         |                                                                                   | OK |   | Thandanani Makhanya - 463827 | Train |
| 10138 | A | Open the circuit breaker 19Q2 TC2                                                        |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0                         |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0                          |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0                          |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0                          |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0                          |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0                         |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0                        |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                        |                                                                                   | OK | 0 | Mvelo Mthembu - 425564       | Train |

|       |   |                                                                                                                                                                            |                                                                                   |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|------------------------------|-------|
| 10147 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC1 and TC2                                                                                                      |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10148 | I | ACU starts working on TC1 and TC2                                                                                                                                          |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10149 | A | Close the circuit breaker 19Q2 TC1                                                                                                                                         |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10150 | A | Close the circuit breaker 57Q1 for all HVAC units                                                                                                                          |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10151 | I | It is necessary to check on the DDU screen for HVAC status                                                                                                                 |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc1cb400distrib = 1.0                                                                                                              |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10153 | R | Read Defined Variable [TT] (MPU1)li_ddk_m4cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10154 | R | Read Defined Variable [TT] (MPU1)li_ddk_m1cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10155 | R | Read Defined Variable [TT] (MPU1)li_ddk_m2cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)li_ddk_m3cb400distrib = 1.0                                                                                                               |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 1.0                                                                                                              |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10158 | A | Close the circuit breaker 19Q2 TC2                                                                                                                                         |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10159 | R | Read Defined Variable [TT] (MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                             |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10160 | R | Read Defined Variable [TT] (MPU1)li_air_tc2mcbcompressor = 1.0                                                                                                             |                                                                                   | OK | 1 | Mvelo Mthembu - 425564       | Train |
| 10161 | R | Verify the circuit breaker 18Q2 ACU on TC1 and TC2 have not tripped                                                                                                        |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10162 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr1                                                                                                                              |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10163 | A | Release [TT] (MPU1)lo_cab_tc1automaticstartr2                                                                                                                              |                                                                                   | OK |   | Mvelo Mthembu - 425564       | Train |
| 10164 | I | Shore supply 400Vac                                                                                                                                                        |                                                                                   | OK |   | Mvelo Mthembu - 425564       | 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 |   | Thandanani Makhanya - 463827 | 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 |   | Thandanani Makhanya<br>- 463827 | Train |
| 10167 | A | Press the button 22S12 to open the HSCB                                                                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10168 | A | Press switch 21S1 to lower both pantographs                                                                              |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0                                                          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0                                                          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10173 | A | Connect the shore supply on TC1 ACU                                                                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0                                                       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 0.0                                                     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0                                                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10178 | A | Press switch 21S1 to raise both pantographs                                                                              |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10179 | A | Close HSCB using the button 22S11                                                                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10180 | I | It is not possible to close HSCB with shore supply connected                                                             |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 0.0                                                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10182 | A | Remove shore supply from TC1 ACU                                                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0                                                     |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                                                                                           |  |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0                                                                                   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10187 | A | Connect the shore supply on TC2 ACU                                                                                                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0                                                                                      |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0                                                                                        |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0                                                                                   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10192 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10193 | I | It is not possible to close HSCB with shore supply connected                                                                                              |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 0.0                                                                                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10195 | A | Remove shore supply from TC2 ACU                                                                                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10196 | I | Shore Supply with 3kV present                                                                                                                             |  | OK |   | Thandanani Makhanya<br>- 463827 | 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 |   | Thandanani Makhanya<br>- 463827 | Train |
| 10198 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 1.0                                                                                         |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10202 | A | Connect the shore supply on TC1 ACU                                                                                                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                         |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10207 | A | Force [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10210 | R | The HSCBs open                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10211 | A | Release [TT]<br>(MPU1)li_nrg_tc1shoresupply__1                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10212 | A | Remove shore supply from TC1 ACU                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10215 | A | Close HSCB using the button 22S11                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10218 | A | Connect the shore supply on TC2 ACU                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                         |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10223 | A | Force [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10226 | R | The HSCBs open                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10227 | A | Release [TT]<br>(MPU1)li_nrg_tc2shoresupply__1                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10228 | A | Remove shore supply from TC2 ACU                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10231 | A | Close HSCB                                                              |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10232 | R | Both ACUs are operational                                               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10233 | I | ACU reverse mode                                                        |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10234 | A | Open HSCB                                                               |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10235 | R | Verify on the DDU that the HSCB is open on M1 and M2                    |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10236 | R | Verify on the DDU that all HVACs are only operating in Ventilation mode |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10237 | R | Verify on the DDU that both CVS are operating in reverse mode           |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10238 | R | Verify on the DDU that both MASU are not running                        |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10239 | A | Switch ON the 3kV DC on the catenary                                    |  | OK |   | Mvelo Mthembu -<br>425564       | Train |
| 10240 | A | Close HSCB using button 22S11                                           |  | OK |   | Mvelo Mthembu -<br>425564       | Train |

|       |   |                                                                                            |  |    |   |                        |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|---|------------------------|-------|
| 10241 | R | Line voltage indicator shows at least 2.7kV DC                                             |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10242 | R | Verify on the DDU that the HSCB is closed on M1 and M2                                     |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10243 | R | Verify on the DDU that all HVACs are operating under normal condition                      |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10244 | I | Automatic Train De-preparation & Auxiliary Converter status TC2                            |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10245 | A | Press the Automatic start button 20S1 on the Driver's Desk or Virtual button on DDU screen |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 0.0                       |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr1 = 0.0                       |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10248 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                     |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10249 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                      |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10250 | R | Train is in LV ready                                                                       |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10251 | I | Automatic train preparation and de-preparation on TC2                                      |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10252 | A | Insert the Driver's master key on TC2 and turn it to ON position                           |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10253 | A | Close the battery contactor 18S1                                                           |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10254 | A | After the TCMS successful initialization, press the automatic start button 20S1            |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10255 | R | Train is prepared in high voltage                                                          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10256 | A | Press the automatic start button 20S1 to de-prepare the train                              |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10257 | R | Train is in LV ready                                                                       |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10258 | A | Open the battery contactor 18S1 to shut down the train                                     |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10259 | R | After few seconds, the train is successfully shutdown                                      |  | OK |   | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                                |  |    |   |                              |       |
|-------|---|------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10260 | A | Close the battery contactor 18S1                                                               |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10261 | A | Wait for the TCMS to successfully initialize                                                   |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10262 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr1___1 = 1.0                           |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr2___1 = 1.0                           |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10265 | A | Release battery contactor 18S1                                                                 |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10266 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1.                  |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10267 | A | Insert the Driver's master key on TC1 and turn it to ON position                               |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10268 | A | Close the battery contactor 18S1                                                               |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10269 | A | Wait for the TCMS to successfully initialize                                                   |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10270 | R | Train is in LV ready                                                                           |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10271 | A | Open the battery contactor 18S1 to shut down the train                                         |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10272 | A | Close the battery contactor 18S1                                                               |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10273 | A | Wait for the TCMS to successfully initialize                                                   |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10274 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the following: |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr1___1 = 1.0                           |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr2___1 = 1.0                           |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10277 | A | Release battery contactor 18S1                                                                 |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10278 | A | Once the PACIS has successfully initialized, Open the battery contactor 18S1.                  |  | OK |   | Mvelo Mthembu - 425564       | Train |
| 10279 | I | End of test                                                                                    |  | OK |   | Mvelo Mthembu - 425564       | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
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## Section 5 – Computer Network and DDU Screen

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### 5.2 Instructions list

### 5.2.1 025\_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            |              | Anthonia Mabowa - 494131 | Train   |
| 10002 | I    | TCMS Network Loop                                                                                                     |      | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10003 | I    | This is a reflectometry test to check the TCMS complete loop                                                          |      | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10004 | I    | Please save each result on the Fluke using the cable number given per line                                            |      | OK            |              | Anthonia Mabowa - 494131 | 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            |              | Anthonia Mabowa - 494131 | 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            |              | Anthonia Mabowa - 494131 | 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            |              | Anthonia Mabowa - 494131 | 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            |              | Anthonia Mabowa - 494131 | 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            |              | Anthonia Mabowa - 494131 | Train   |
| 10010 | R    | There is good connection between CRS2-M4[25A11] port X3 and CRS2-M2[25A11] port X4 TSX T06                            |      | OK            |              | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | Train |
| 10017 | I | Pacis Network Loop                                                                                                  |  | OK |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | 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 |  | Anthonia Mabowa - 494131 | Train |
| 10020 | R | There is good connection between CRS2-M4[54A11]port X8 and CRS1-M2[54A10]port X7 TSX P03                            |  | OK |  | Anthonia Mabowa - 494131 | 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 |   | Anthonia Mabowa - 494131 | 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 |   | Anthonia Mabowa - 494131 | 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 |   | Anthonia Mabowa - 494131 | 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 |   | Anthonia Mabowa - 494131 | Train |
| 10026 | A | Switch ON the train in TC1 in Normal mode                                                                         |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10027 | I | MCE in TC1 should be the master MCE to begin the test                                                             |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)NET_LocalMcelsMaster = 1.0                                                       |  | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU2)NET_LocalMcelsMaster = 0.0                                                       |  | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10030 | A | Open the circuit breaker 40Q1 in TC1                                                                              |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10031 | I | The MCE in TC2 becomes the master MCE                                                                             |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10032 | R | Read Defined Variable [TT] (MPU2)NET_LocalMcelsMaster = 1.0                                                       |  | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10033 | A | Close circuit breaker 40Q1 in TC1                                                                                 |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10034 | A | Open circuit breaker 40Q1 in TC2                                                                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10035 | I | The MCE in TC1 becomes the Master                                                                                 |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10036 | R | Read Defined Variable [TT] (MPU1)NET_LocalMcelsMaster = 1.0                                                       |  | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10037 | A | Close the circuit breaker 40Q1 in TC2                                                                             |  | OK |   | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                |  |    |   |                             |       |
|-------|---|----------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0 |  | OK | 1 | Anthonia Mabowa -<br>494131 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 0.0 |  | OK | 0 | Anthonia Mabowa -<br>494131 | Train |
| 10040 | A | Go to software version on DDU and select<br>RUN BL.            |  | OK |   | Anthonia Mabowa -<br>494131 | Train |
| 10041 | R | The Train Baseline is : 1.8/10.1/10.2                          |  | OK |   | Anthonia Mabowa -<br>494131 | Train |
| 10042 | I | End of Test                                                    |  | OK |   | Anthonia Mabowa -<br>494131 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 6 – Main Circuit Breaker Control

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### 6.2 Instructions list

## 6.2.1 022\_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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10002 | I    | Initial Conditions                                                                                                                              |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10003 | I    | This test is to verify the correct operation of the main high voltage circuit breaker.                                                          |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10004 | I    | Train in LV ready                                                                                                                               |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10005 | I    | The catenary should be switched OFF                                                                                                             |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10006 | I    | Circuit breaker 34Q1 should be closed in all Propulsion boxes                                                                                   |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10007 | I    | No Fire Detection alarm on the DDU screen                                                                                                       |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10008 | I    | Start Test                                                                                                                                      |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10009 | I    | HSCB control without High Voltage                                                                                                               |      | OK            |              | Nokuzola Mdluli - 491469 | 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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10011 | I    | The button 27S5 should not be pressed on both cars                                                                                              |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10012 | A    | Active Cab on TC1                                                                                                                               |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 0.0                                                                                   |      | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 0.0                                                                                      |      | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |

|       |   |                                                               |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 0.0    |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 0.0    |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 0.0    |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 0.0  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 0.0  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 0.0  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 0.0  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 1.0    |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 1.0    |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 1.0    |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 1.0    |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0 |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0 |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10031 | A | Press the button 21S1 to raise<br>Pantographs                 |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10032 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1 =<br>1.0           |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10033 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2 =<br>1.0           |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10034 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1 =<br>1.0           |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10035 | A | Force [TT]                                                    |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                   |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------|--|----|---|--------------------------|-------|
|       |   | (MPU1)Lo_HSC_Tc2HSCBCLOSE_R2 = 1.0                                |  |    |   |                          |       |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc1firedetection = 0.0 |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc2firedetection = 0.0 |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 1.0     |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 1.0     |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 1.0     |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 1.0     |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0        |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0        |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0        |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0        |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0      |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0      |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0      |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0      |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0        |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0        |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0        |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0        |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                                    |  |    |   |                             |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 0.0                                                      |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr2 = 0.0                                                      |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10056 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1                                                                       |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10057 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2                                                                       |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10058 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1                                                                       |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10059 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R2                                                                       |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10060 | A | Press the button 21S1 to lower<br>pantographs                                                                      |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10061 | I | Traction Converter Isolation TC1                                                                                   |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10062 | A | Switch ON the 3kV DC on the catenary                                                                               |  | OK |   | Nokuzola Mdluli -<br>491469 | 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 |   | Nokuzola Mdluli -<br>491469 | Train |
| 10064 | A | Press the button 21S1 to raise<br>pantographs                                                                      |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10065 | A | Press the button 22S11 to close HSCBs                                                                              |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10066 | R | Button lamp 22S11 is ON                                                                                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 1.0                                                  |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpbr1 = 0.0                                                  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0                                                  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0                                                  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0                                                  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0                                                  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                                 |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10077 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2          |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0               |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0                       |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0               |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0                 |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0                 |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10086 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10087 | A | Both HSCBs are closed                                                           |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10088 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10089 | A | Open HSCBs                                                                      |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10090 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10091 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                              |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10092 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4          |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0            |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 1.0            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                    |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0              |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0              |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10101 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10102 | A | Both HSCBs are closed                                                        |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10103 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10104 | A | Open HSCBs                                                                   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10105 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10106 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10107 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 1.0            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0                    |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                 |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                       |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 1.0                   |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0                   |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10116 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10117 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10118 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10119 | R | All Traction units are in service and<br>operational                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10120 | A | Press the button 22S12 to open the<br>HSCBs                                     |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0                   |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                   |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10123 | A | Press the button 21S1 to lower both<br>pantographs                              |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10124 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                          |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10125 | A | Remove active cab on TC1                                                        |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10126 | I | HSCB Operation with High Voltage                                                |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10127 | A | Active Cab on TC2                                                               |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10128 | A | Press the button 21S1 to raise both<br>pantographs                              |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10129 | R | Both pantographs are raised successfully                                        |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10130 | R | The voltage on the Line Voltage Indicator<br>module is at least 2.7 kV DC       |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                         |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10131 | A | Press the button 22S11 to close HSCBs                                   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 0.0    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0              |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0              |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0              |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0              |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0              |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0              |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0              |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0              |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10146 | I | Traction Converter Isolation TC2                                        |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 0.0       |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpbr1 = 1.0       |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                        |  |    |   |                             |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0      |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0      |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0              |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10158 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2 |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0      |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0              |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0        |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0        |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10165 | A | Press the button 22S11 to close HSCB                                   |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10166 | A | Both HSCBs are closed                                                  |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10167 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                              |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10168 | A | Open HSCBs                                                                   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10169 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10170 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10171 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4          |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0            |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                    |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                    |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0              |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0              |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10180 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10181 | A | Both HSCBs are closed                                                        |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10182 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10183 | A | Open HSCBs                                                                   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10184 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10185 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10186 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                 |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0               |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0                       |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                       |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10195 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10196 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10197 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10198 | R | All Traction units are in service and<br>operational                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10199 | I | End of test                                                                     |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 7 – Cabin Control

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### 7.2 Instructions list

### 7.2.1 020\_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            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10002 | I    | Initial Condition                                                            |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10003 | I    | Backup switch should be in Normal Position                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10004 | I    | Train should be OFF                                                          |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10005 | I    | Start Test                                                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10006 | I    | Cab Active TC1                                                               |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10007 | A    | Insert Driver's Master key and turn it to ON position                        |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10008 | A    | Close the battery contactor 18S1                                             |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10009 | R    | Train successfully start up in normal mode                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10010 | A    | Put the direction selector switch to FORWARD position                        |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10011 | A    | Try to put the Driver's master key in OFF position or remove it from the cab |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10012 | R    | It is not possible to remove or turn the Driver's master key                 |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10013 | A    | Put the direction selector switch to NEUTRAL position                        |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0            |      | OK            | 1            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10015 | A    | Turn key to non-active cab                                                   |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10016 | A    | Open and close circuit breaker 20Q2                                          |      | OK            |              | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0             |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0             |      | OK            | 0            | Goitsemodimo<br>Kgatitswe - 526511 | Train   |

|       |   |                                                                            |  |    |   |                                    |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0             |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 1.0             |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0             |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 1.0          |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 0.0          |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 1.0          |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 1.0          |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 1.0          |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 1.0             |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 1.0             |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 1.0 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10031 | A | Active cab on TC1                                                          |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0          |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 1.0           |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0           |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 0.0             |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 0.0             |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                                                      |  |    |   |                                    |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------------|-------|
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 0.0                                                       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 0.0                                                       |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 0.0                                                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 1.0                                                    |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 0.0                                                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 0.0                                                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 0.0                                                    |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0                                           |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 0.0                                           |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10046 | I | Train Preparation with Automatic Start<br>button TC1                                                                 |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0                                                 |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10048 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10049 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10050 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10051 | 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 |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                                                 |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10053 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                                               |  | OK | 1 | Goitsemodimo<br>Kgatitswe - 526511 | Train |
| 10054 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                                                |  | OK | 2 | Goitsemodimo<br>Kgatitswe - 526511 | Train |

|       |   |                                                                                  |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10055 | I | Train De-preparation with Automatic Start button TC1                             |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10056 | A | Press the automatic start button 20S1                                            |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10057 | A | Timer 5.0 S                                                                      |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10058 | R | Read Defined Variable [TT] (MPU1)lo_cab_tc1automaticstartr1 = 0.0                |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10059 | R | Read Defined Variable [TT] PNT_AllPantoRaised = 0.0                              |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10060 | R | Read Defined Variable [TT] HSC_HscbClosedNum = 0.0                               |  | OK | 0 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10061 | A | Remove active cab on TC1                                                         |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10062 | I | Standby mode TC1                                                                 |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10063 | A | Active cab on TC1                                                                |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10064 | A | Press the automatic start button 20S1                                            |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10065 | A | Remove active Cab on TC1                                                         |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10066 | A | Manually isolate EB on M4 using the pneumatic cock C2.3/1                        |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10067 | A | Press the standby mode button 20S2 and maintain it                               |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10068 | A | Manually isolate EB on TC1 using the pneumatic cock C1.3/1                       |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10069 | R | The pantograph lower and both HSCB open, then the train shuts down automatically |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10070 | A | Normalize the cock on M4                                                         |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10071 | A | Normalize the cock on TC1                                                        |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10072 | A | Cab Active TC2                                                                   |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10073 | A | Insert Driver's Master Key and turn it to ON position                            |  | OK |   | Mphato Mphahlele - 480716       | Train |
| 10074 | A | Put the direction selector switch to FORWARD position                            |  | OK |   | Goitsemodimo Kgatitswe - 526511 | Train |
| 10075 | A | Try to put the Driver's master key in OFF position or remove it from the cab     |  | OK |   | Goitsemodimo 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 |   | Mphato Mphahlele -<br>480716       | Train |
| 10144 | A | Active cab on TC2                                                                                       |  | OK |   | Mphato Mphahlele -<br>480716       | Train |
| 10145 | A | Press the automatic start button 20S1                                                                   |  | OK |   | Mphato Mphahlele -<br>480716       | Train |
| 10146 | A | Remove active Cab on TC2                                                                                |  | OK |   | Mphato Mphahlele -<br>480716       | Train |
| 10147 | A | Manually isolate EB on M3 using the<br>pneumatic cock C2.3/1                                            |  | OK |   | Mphato Mphahlele -<br>480716       | Train |
| 10148 | A | Press the standby mode button 20S2 and<br>maintain it                                                   |  | OK |   | Mphato Mphahlele -<br>480716       | Train |
| 10149 | A | Manually isolate EB on TC2 using the<br>pneumatic cock C1.3/1                                           |  | OK |   | Mphato Mphahlele -<br>480716       | Train |
| 10150 | R | The pantograph lower and both HSCB<br>open, then the train shuts down                                   |  | OK |   | Mphato Mphahlele -<br>480716       | Train |

|       |   |                           |  |    |  |                           |       |
|-------|---|---------------------------|--|----|--|---------------------------|-------|
|       |   | automatically             |  |    |  |                           |       |
| 10151 | A | Normalize the cock on M3  |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10152 | A | Normalize the cock on TC2 |  | OK |  | Mphato Mphahlele - 480716 | Train |
| 10153 | I | End of Test               |  | OK |  | Mphato Mphahlele - 480716 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 8 – Internal Lighting

### 8.2 Instructions list

#### 8.2.1 052\_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            |              | Mvelo Mthembu - 425564 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10003 | I    | Train should be off                                                                                |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10004 | I    | Main lighting                                                                                      |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                         |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10006 | I    | Main lighting is 100% brightness                                                                   |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10007 | R    | Main lighting is (ON) on TC1, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10008 | R    | Main lighting is (ON) on M4, verify the left and right LEDs are ON in each row in 100% brightness. |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10009 | R    | Main lighting is (ON) on M1, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10010 | R    | Main lighting is (ON) on M2, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10011 | R    | Main lighting is (ON) on M3, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10012 | R    | Main lighting is (ON) on TC2, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Mvelo Mthembu - 425564 | Train   |

|       |   |                                                                       |  |    |  |                        |       |
|-------|---|-----------------------------------------------------------------------|--|----|--|------------------------|-------|
| 10013 | A | Force [TT] (MPU1)lo_lgt_tc1mainlgtcmd = 0.0                           |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10014 | A | Force [TT] (MPU1)lo_lgt_tc2mainlgtcmd = 0.0                           |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10015 | R | Emergency lighting is (ON) on TC2, brightness has been reduced to low |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10016 | R | Emergency lighting is (ON) on M3, brightness has been reduced to low  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10017 | R | Emergency lighting is (ON) on M2, brightness has been reduced to low  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10018 | R | Emergency lighting is (ON) on M1, brightness has been reduced to low  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10019 | R | Emergency lighting is (ON) on M4, brightness has been reduced to low  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10020 | R | Emergency lighting is (ON) on TC1, brightness has been reduced to low |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10021 | A | Release [TT] (MPU1)lo_lgt_tc1mainlgtcmd                               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10022 | A | Release [TT] (MPU1)lo_lgt_tc2mainlgtcmd                               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10023 | I | End of Test                                                           |  | OK |  | Mvelo Mthembu - 425564 | Train |

## Section 9 – Pantograph

---

### 9.2 Instructions list

### 9.2.1 021\_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            |              | Sicelo Mtolo - 525130 | Train   |
| 10002 | I    | Initial Conditions                                                                     |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10003 | I    | Main pipe should be 10bar                                                              |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10004 | I    | HSCB is open on M1 and M2 and both pantographs are low                                 |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10005 | I    | Auxiliary Compressor test must be completed in car level prior to performing this test |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10006 | I    | Mechanical pantograph test must be completed prior to performing this test             |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10007 | I    | EARTHING SWITCH T1 is in NORMAL Position on M1                                         |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10008 | I    | EARTHING SWITCH T1 is in NORMAL Position on M2                                         |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10009 | I    | HVB1 valve is in NORMAL position on M1                                                 |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10010 | I    | HVB1 valve is in NORMAL position on M2                                                 |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10011 | I    | Start of Test                                                                          |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10012 | A    | Active Cab on TC1                                                                      |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10013 | I    | Main Tank pressure switch                                                              |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10014 | I    | Make sure the HSCB is open                                                             |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10015 | A    | Empty the main pipe using the cock F2.1/1                                              |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10016 | A    | Connect a manometer on valve K2.8 in M1 and measure the pressure                       |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10017 | A    | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M1              |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10018 | I    | The sensor of the pantograph reservoir should switch when the pressure reaches         |      | OK            |              | Sicelo Mtolo - 525130 | Train   |

|       |   |                                                                                                                                 |  |    |   |                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
|       |   | 5.5 bar(+/- 10%)                                                                                                                |  |    |   |                       |       |
| 10019 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10020 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10021 | A | Connect a manometer on valve K2.8 in M2 and measure the pressure                                                                |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10022 | A | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M2 car                                                   |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10023 | I | The sensor of the pantograph reservoir should switch when the pressure reaches 5.5 bar(+/- 10%)                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10024 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10025 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10026 | A | Normalize the main pipe                                                                                                         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10027 | A | Close the HSCB                                                                                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10028 | A | Remove the manometer                                                                                                            |  | OK |   | Sicelo Mtolo - 525130 | 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 |   | Sicelo Mtolo - 525130 | Train |
| 10030 | A | Close the circuit breaker 21Q1 in M2                                                                                            |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10031 | R | Auxiliary compressor starts working                                                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr1 = 0.0                                                          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr2 = 0.0                                                          |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr1 = 1.0                                                          |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr2 = 1.0                                                          |  | OK | 1 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                  |  |    |  |                       |       |
|-------|---|--------------------------------------------------|--|----|--|-----------------------|-------|
| 10036 | A | Remove the manometer nozzle on M2                |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10037 | A | Put HVB1 valve in NORMAL position on M2          |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10038 | A | Put the earthing switch in NORMAL position on M2 |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10039 | A | Put HVB1 valve in NORMAL position on M1          |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10040 | A | Put the earthing switch in NORMAL position on M1 |  | OK |  | Sicelo Mtolo - 525130 | Train |
| 10041 | I | End of Test                                      |  | OK |  | Sicelo Mtolo - 525130 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 10 – Air Production

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### 10.2 Instructions list

### 10.2.1 019\_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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10002 | I    | Initial Conditions                                                               |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10003 | A    | Put the train in LV ready (No High Voltage/No Shore Supply) on TC1 as active cab |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10004 | A    | Drain the air on TC1 main pipe using the cock F2.1/1                             |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10005 | R    | The pressure gauge of the main pipe is 0 bar                                     |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10006 | A    | Normalise the cock                                                               |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10007 | I    | Start of Test                                                                    |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0               |      | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                 |      | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10010 | A    | Open circuit breaker 19Q3 on TC1                                                 |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 0.0                    |      | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10012 | A    | Close circuit breaker 19Q3                                                       |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                    |      | OK            | 1            | Nokuzola Mdluli - 491469 | Train   |
| 10014 | A    | Open circuit breaker 19Q3 on TC2                                                 |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 0.0                    |      | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10016 | A    | Close circuit breaker 19Q3 on TC2                                                |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0                    |      | OK            | 1            | Nokuzola Mdluli - 491469 | Train   |

|       |   |                                                                                                      |    |   |                             |       |
|-------|---|------------------------------------------------------------------------------------------------------|----|---|-----------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                     | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                   | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10020 | I | Main Compressor operation                                                                            | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10021 | A | Press the automatic start button 20S1                                                                | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10022 | I | Both main air compressors start up                                                                   | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                                     | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 1.0                                     | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                                     | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                                     | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0                                   | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                   | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10029 | I | It is necessary to check main pipe pressure<br>on the pneumatic gauge of TC1 and TC2<br>individually | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10030 | A | Wait for 10 minutes, then read the<br>variables below                                                | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                     | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                     | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                     | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                     | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0                                   | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                   | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                                                         |  |    |   |                          |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10037 | A | Force [TT] NET_TrainTimeEvenDay = 1.0                                                                   |  | OK |   | Nokuzola Mdluli - 491469 | 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 |   | Nokuzola Mdluli - 491469 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler2 = 1.0                                           |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10040 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler1 = 0.0                                           |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10041 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops                                    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10042 | A | Force [TT] NET_TrainTimeEvenDay = 0.0                                                                   |  | OK |   | Nokuzola Mdluli - 491469 | 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 |   | Nokuzola Mdluli - 491469 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)lo_air_tc1compenabler1 = 0.0                                           |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10045 | R | Read Defined Variable [TT] (MPU1)lo_air_tc2compenabler2 = 1.0                                           |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10046 | I | Compressor Manual Isolation TC1                                                                         |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10047 | A | Normalise the cock F2.1/1 and let the compressor runs until it stops                                    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10048 | A | Put the pneumatic switch 19S1 to ISOLATION position                                                     |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 1.0                                            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr2 = 1.0                                            |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10051 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplyok = 1.0                                              |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10052 | R | Read Defined Variable [TT] (MPU1)air_bcu1airsupplydelay = 0.0                                           |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10053 | A | Put the pneumatic switch 19S1 to NORMAL position                                                        |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10054 | R | Read Defined Variable [TT] (MPU1)li_air_tc1condemnedr1 = 0.0                                            |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                                                                                           |                                                                                   |    |        |                             |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--------|-----------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr2 = 0.0                                                                                                           |                                                                                   | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                                                                                                          |                                                                                   | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                   | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |
| 10058 | R |                                                                                                                                                                           |                                                                                   | OK | 991.24 | Nokuzola Mdluli -<br>491469 | Train |
| 10059 | I | Compressor stops when it reaches 10 bar                                                                                                                                   |                                                                                   | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                   | OK | 1      | Nokuzola Mdluli -<br>491469 | 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 |        | Nokuzola Mdluli -<br>491469 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                                                                                          |                                                                                   | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                         |                                                                                   | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0                                                                                                              |                                                                                   | OK | 1      | Nokuzola Mdluli -<br>491469 | 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 |        | Nokuzola Mdluli -<br>491469 | Train |
| 10067 | A | Release the air in the main pipe until it<br>reaches below 8.5 bar                                                                                                        |                                                                                   | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10068 | A | Open circuit breaker 19Q3                                                                                                                                                 |                                                                                   | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0                                                                                                        |                                                                                   | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |
| 10070 | A | Press the button 19S2 and hold                                                                                                                                            |                                                                                   | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0                                                                                                              |                                                                                   | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                         |                                                                                   | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                    |  |    |   |                             |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10074 | A | Release the button 19S2                                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10078 | A | Open circuit breaker 19Q2 in the LVB                               |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0  |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10080 | A | Press and hold the button 19S2                                     |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10082 | A | Release the button 19S2                                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1remotecb = 0.0       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10084 | A | Close circuit breaker 19Q3                                         |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10085 | A | Press 19S2 and RELEASE in less than a second                       |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10089 | I | Compressor Manual Isolation TC2                                    |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10090 | A | Put the pneumatic switch 19S1 to ISOLATION position                |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 1.0    |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 1.0    |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                    |  |    |        |                             |       |
|-------|---|--------------------------------------------------------------------|--|----|--------|-----------------------------|-------|
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0 |  | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10094 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                   |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 |  | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10098 | A | Put the pneumatic switch 19S1 to<br>NORMAL position                |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 0.0    |  | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 0.0    |  | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0 |  | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |
| 10104 | I | Compressor stops when it reaches 10 bar                            |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10105 | R |                                                                    |  | OK | 995.98 | Nokuzola Mdluli -<br>491469 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 |  | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10107 | A | Remove active cab on TC1                                           |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |
| 10109 | A | Active cab on TC2                                                  |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0      | Nokuzola Mdluli -<br>491469 | Train |
| 10111 | I | Compressor Remote Isolation TC2                                    |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0  |  | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                                                         |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                            |  | OK | 1 | Nokuzola Mdluli -<br>491469 | 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 |   | Nokuzola Mdluli -<br>491469 | Train |
| 10115 | A | Release the air in the main pipe until it reaches below 8.5 bar                                         |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                      |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10117 | A | Open circuit breaker 19Q3                                                                               |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10118 | A | Press and hold the button 19S2                                                                          |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                            |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10121 | A | Release the button 19S2                                                                                 |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                            |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |
| 10124 | A | Open circuit breaker 19Q2 in LVB                                                                        |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                                       |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10126 | A | Press and hold the button 19S2                                                                          |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                            |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10128 | A | Release the button 19S2                                                                                 |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10129 | A | Close circuit breaker 19Q3                                                                              |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2remotecb = 0.0                                            |  | OK | 0 | Nokuzola Mdluli -<br>491469 | Train |
| 10131 | A | Press 19S2 and RELEASE in less than a second                                                            |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                       |  | OK | 1 | Nokuzola Mdluli -<br>491469 | Train |

|       |   |                                                                                                                                                       |  |    |        |                             |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--------|-----------------------------|-------|
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                                                                    |  | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                                                                          |  | OK | 1      | Nokuzola Mdluli -<br>491469 | Train |
| 10135 | I | Air tightness of Main pipe and other<br>pneumatic systems on train                                                                                    |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10136 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                                                                                      |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10137 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                                                                                      |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10138 | A | Empty the main pipe pressure using<br>draining cock A5/1 until it reaches below<br>7.5 bar                                                            |  | OK |        | Nokuzola Mdluli -<br>491469 | 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 |        | Nokuzola Mdluli -<br>491469 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                                                                          |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                                                                          |  | OK |        | Nokuzola Mdluli -<br>491469 | 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 |        | Nokuzola Mdluli -<br>491469 | Train |
| 10143 | I | After 10 minutes, the air in the main pipe<br>should not be less than 9.3 bar                                                                         |  | OK |        | Nokuzola Mdluli -<br>491469 | Train |
| 10144 | R | Read Undefined Variable [TT]<br>(MPU1)air_bcu1mrpres                                                                                                  |  | OK | 934.35 | Nokuzola Mdluli -<br>491469 | Train |
| 10145 | I | Air tightness of main reservoirs and<br>associated devices combined with other<br>pneumatic equipment's                                               |  | OK |        | Nokuzola Mdluli -<br>491469 | 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 |        | Nokuzola Mdluli -<br>491469 | Train |
| 10147 | A | Reset the air in the main pipe to 10 bar+/-<br>0.2 bar                                                                                                |  | OK |        | Nokuzola Mdluli -<br>491469 | 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 |        | Nokuzola Mdluli -<br>491469 | 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 |       | Nokuzola Mdluli - 491469  | Train |
| 10150 | R |                                                                                                                                                                                                      |                                                                                     | OK | 934   | Nokuzola Mdluli - 491469  | Train |
| 10151 | A | NORMALISE the isolation cocks C1.3/1 and C2.3/1                                                                                                                                                      |                                                                                     | OK |       | Nokuzola Mdluli - 491469  | Train |
| 10152 | I | Air tightness of brake cylinders and auxiliary reservoirs                                                                                                                                            |                                                                                     | OK |       | Nokuzola Mdluli - 491469  | Train |
| 10153 | R | The pressure on the pneumatic indicator is 10 bar +/- 0.2 bar                                                                                                                                        |                                                                                     | OK |       | Nokuzola Mdluli - 491469  | Train |
| 10154 | A | Select driving direction to FORWARD position                                                                                                                                                         |                                                                                     | OK |       | Nokuzola Mdluli - 491469  | Train |
| 10155 | A | Put Master Controller in 100% Service brake position                                                                                                                                                 |                                                                                     | OK |       | Nokuzola Mdluli - 491469  | 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 |       | Nokuzola Mdluli - 491469  | Train |
| 10157 | R | SB TC1<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                                                      |                                                                                     | OK | 142   | Nokuzola Mdluli - 491469  | Train |
| 10158 | R | SB M4<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                                                       |                                                                                     | OK | 138   | Nokuzola Mdluli - 491469  | Train |
| 10159 | R | SB M1<br>Result Min/Max : 137<= x <= 177 (kPa)                                                                                                                                                       |                                                                                     | OK | 138.8 | Alleta Sekgololo - 417407 | Train |
| 10160 | R | SB M2<br>Result Min/Max : 137<= x <= 176 (kPa)                                                                                                                                                       |                                                                                     | OK | 140   | Nokuzola Mdluli - 491469  | Train |
| 10161 | R | SB M3<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                                                       |                                                                                     | OK | 142   | Nokuzola Mdluli - 491469  | Train |
| 10162 | R | SB TC2<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                                                      |                                                                                     | OK | 138   | Nokuzola Mdluli - 491469  | 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 |       | Nokuzola Mdluli - 491469  | Train |
| 10164 | I | Draining Cock for Intercar                                                                                                                                                                           |                                                                                     | OK |       | Nokuzola Mdluli - 491469  | Train |
| 10165 | I | Air in the main pipe should be 10 bar +/- 0.2 bar                                                                                                                                                    |                                                                                     | OK |       | Nokuzola Mdluli - 491469  | Train |
| 10166 | A | This test is to ensure that the draining cocks are fully functional                                                                                                                                  |                                                                                     | OK |       | Nokuzola Mdluli - 491469  | Train |

|       |   |                                                                                              |  |    |  |                          |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10167 | A | Isolate all the cocks from M3 to M4                                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10168 | A | Drain the air on TC1 car using the cock F2.1/1                                               |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10169 | A | Drain the air on M4 car using the cock F2.1/1                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10170 | A | Drain the air on M1 car using the cock F2.1/1                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10171 | A | Drain the air on M2 car using the cock F2.1/1                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10172 | A | Drain the air on M3 car using the cock F2.1/1                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10173 | A | Drain the air on TC2 car using the cock F2.1/1                                               |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10174 | A | Normalise all the cocks                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10175 | A | Use the tool on the top right corner to add the manometer used for this test (serial number) |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10176 | I | End of Test                                                                                  |  | OK |  | Nokuzola Mdluli - 491469 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 11 – Monitoring Circuit Breakers

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### 11.2 Instructions list

### 11.2.1 080\_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            |              | Mphato Mphahlele - 480716 | Train   |
| 10002 | I    | TC1                                                              |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10003 | A    | Open the circuit breaker 15Q4                                    |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10004 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 0.0 |      | OK            | 0            | Alleta Sekgololo - 417407 | Train   |
| 10005 | A    | Close the circuit breaker 15Q4                                   |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 1.0 |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10007 | A    | Open the circuit breaker 13Q1                                    |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 0.0 |      | OK            | 0            | Alleta Sekgololo - 417407 | Train   |
| 10009 | A    | Close the circuit breaker 13Q1                                   |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 1.0 |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10011 | A    | Open the circuit breaker 57Q1                                    |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0 |      | OK            | 0            | Alleta Sekgololo - 417407 | Train   |
| 10013 | A    | Close the circuit breaker 57Q1                                   |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 1.0 |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10015 | A    | Open the circuit breaker 72Q1                                    |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 0.0     |      | OK            | 0            | Alleta Sekgololo - 417407 | Train   |
| 10017 | A    | Close the circuit breaker 72Q1                                   |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 1.0     |      | OK            | 1            | Mphato Mphahlele - 480716 | Train   |
| 10019 | A    | Open the circuit breaker 40Q4                                    |      | OK            |              | Alleta Sekgololo - 417407 | Train   |

|       |   |                                                                   |  |    |   |                              |       |
|-------|---|-------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 0.0       |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10021 | A | Close the circuit breaker 40Q4                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 1.0       |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10023 | A | Open the circuit breaker 50Q7                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 0.0       |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10025 | A | Close the circuit breaker 50Q7                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 1.0       |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10027 | A | Open the circuit breaker 22Q1                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 0.0      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10029 | A | Close the circuit breaker 22Q1                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 1.0      |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10031 | A | Open the circuit breaker 44Q1                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10034 | A | Close the circuit breaker 44Q1                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10037 | A | Open the circuit breaker 72Q2                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 0.0     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10039 | A | Close the circuit breaker 72Q2                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 1.0     |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                    |  |    |   |                           |       |
|-------|---|--------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10041 | A | Open the circuit breaker 25Q11                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)li_DDK_Tc1CbTcms1R2 = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10043 | A | Close the circuit breaker 25Q11                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10044 | A | Open the circuit breaker 25Q13                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10046 | A | Close the circuit breaker 25Q13                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 1.0      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r2 = 1.0      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10049 | A | Open the circuit breaker 25Q10                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10052 | A | Close the circuit breaker 25Q10                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 1.0      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 1.0      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10055 | A | Open the circuit breaker 75Q1                                      |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10058 | A | Close the circuit breaker 75Q1                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10061 | I | M4                                                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                 |  |    |   |                           |       |
|-------|---|-----------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10062 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10064 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10066 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10068 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10070 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10072 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10074 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10076 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 1.0      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10078 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10080 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 1.0      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10082 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                  |  |    |   |                              |       |
|-------|---|------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10085 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 1.0        |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10087 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 0.0    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10089 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 1.0    |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10091 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 0.0        |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10093 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 1.0        |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10095 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10098 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 1.0 |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10101 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 0.0     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10103 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                |    |   |                              |       |
|-------|---|----------------------------------------------------------------|----|---|------------------------------|-------|
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10105 | A | Open the circuit breaker 25Q6                                  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 0.0   | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 0.0   | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10108 | A | Close the circuit breaker 25Q6                                 | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10111 | A | Open the circuit breaker 25Q10                                 | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 0.0   | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10113 | A | Close the circuit breaker 25Q10                                | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10114 | A | Open the circuit breaker 25Q14                                 | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 0.0   | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10116 | A | Close the circuit breaker 25Q14                                | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 1.0   | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10119 | A | Open the circuit breaker 33Q1                                  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 0.0  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10121 | A | Close the circuit breaker 33Q1                                 | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 1.0  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10123 | A | Open the circuit breaker 55Q2                                  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 0.0 | OK | 0 | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                 |  |    |   |                           |       |
|-------|---|-----------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10125 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 1.0  |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10127 | I | M1                                                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10128 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10130 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10132 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10134 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10136 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10138 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10140 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10142 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 1.0      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10144 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10146 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                  |    |   |                              |       |
|-------|---|------------------------------------------------------------------|----|---|------------------------------|-------|
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 1.0       | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10148 | A | Open the circuit breaker 21Q2                                    | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 0.0      | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10150 | A | Close the circuit breaker 21Q2                                   | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 1.0      | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10152 | A | Open the circuit breaker 57Q2                                    | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 0.0        | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10154 | A | Close the circuit breaker 57Q2                                   | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 1.0        | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10156 | A | Open the circuit breaker 52Q4                                    | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 0.0    | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10158 | A | Close the circuit breaker 52Q4                                   | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 1.0    | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10160 | A | Open the circuit breaker 54Q10                                   | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacs = 0.0        | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10162 | A | Close the circuit breaker 54Q10                                  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacs = 1.0        | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10164 | A | Open the circuit breaker 44Q1                                    | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 0.0 | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 0.0 | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10167 | A | Close the circuit breaker 44Q1                                   | OK |   | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                  |    |   |                              |       |
|-------|---|------------------------------------------------------------------|----|---|------------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 1.0 | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 1.0 | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10170 | A | Open the circuit breaker 13Q2                                    | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 0.0     | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10172 | A | Close the circuit breaker 13Q2                                   | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 1.0     | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10174 | A | Open the circuit breaker 25Q6                                    | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 0.0     | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 0.0     | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10177 | A | Close the circuit breaker 25Q6                                   | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 1.0     | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 1.0     | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10180 | A | Open the circuit breaker 25Q10                                   | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 0.0     | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10182 | A | Close the circuit breaker 25Q10                                  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10183 | A | Open the circuit breaker 25Q14                                   | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 0.0     | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10185 | A | Close the circuit breaker 25Q14                                  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 1.0     | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 1.0     | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10188 | A | Open the circuit breaker 33Q1                                    | OK |   | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                 |  |    |   |                              |       |
|-------|---|-----------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 0.0   |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10190 | A | Close the circuit breaker 33Q1                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 1.0   |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10192 | A | Open the circuit breaker 55Q2                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 0.0  |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10194 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 1.0  |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10196 | I | M2                                                              |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10197 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10199 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10201 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10203 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10205 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10207 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 1.0 |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10209 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                              |  |    |   |                              |       |
|-------|---|--------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 0.0   |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10211 | A | Close the circuit breaker 40Q1                               |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 1.0   |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10213 | A | Open the circuit breaker 50Q4                                |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 0.0   |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10215 | A | Close the circuit breaker 50Q4                               |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 1.0   |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10217 | A | Open the circuit breaker 21Q2                                |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 0.0  |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10219 | A | Close the circuit breaker 21Q2                               |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 1.0  |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10221 | A | Open the circuit breaker 62Q2                                |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10224 | A | Close the circuit breaker 62Q2                               |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10227 | A | Open the circuit breaker 57Q2                                |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvacc = 0.0   |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10229 | A | Close the circuit breaker 57Q2                               |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvacc = 1.0   |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                  |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10231 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 0.0    |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10233 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10235 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 0.0        |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10237 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 1.0        |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10239 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10242 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10245 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 0.0     |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10247 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 1.0     |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10249 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtms1r1 = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtms1r2 = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                |  |    |   |                           |       |
|-------|---|----------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10252 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10255 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 0.0   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10257 | A | Close the circuit breaker 25Q10                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10258 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 0.0   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10260 | A | Close the circuit breaker 25Q14                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10261 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10262 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 1.0   |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10263 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 0.0  |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10265 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 1.0  |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10267 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10269 | A | Close the circuit breaker 55Q2                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10271 | I | M3                                                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10272 | A | Open the circuit breaker 15Q4                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                 |  |    |   |                              |       |
|-------|---|-----------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10274 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10276 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10278 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10280 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10282 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10284 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 0.0      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10286 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 1.0      |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10288 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 0.0      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10290 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 1.0      |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10292 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvac = 0.0       |  | OK | 0 | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                                  |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10294 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvac = 1.0        |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10296 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 0.0    |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10298 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 1.0    |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10300 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpaxis = 0.0       |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10302 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpaxis = 1.0       |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10304 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10307 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10310 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 0.0     |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10312 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 1.0     |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10314 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 0.0   |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 0.0   |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10317 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 1.0   |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 1.0   |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10320 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 0.0   |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10322 | A | Close the circuit breaker 25Q10                                |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10323 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 0.0   |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10325 | A | Close the circuit breaker 25Q14                                |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 1.0   |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 1.0   |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10328 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 0.0  |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10330 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 1.0  |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10332 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10334 | A | Close the circuit breaker 55Q2                                 |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |

|       |   |                                                               |  |    |   |                           |       |
|-------|---|---------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10336 | I | TC2                                                           |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10337 | A | Open the circuit breaker 15Q4                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10338 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb110distrib = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10339 | A | Close the circuit breaker 15Q4                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10340 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb110distrib = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10341 | A | Open the circuit breaker 13Q1                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10342 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb230distrib = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10343 | A | Close the circuit breaker 13Q1                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10344 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb230distrib = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10345 | A | Open the circuit breaker 57Q1                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10346 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 0.0 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10347 | A | Close the circuit breaker 57Q1                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10348 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cb400distrib = 1.0 |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10349 | A | Open the circuit breaker 72Q1                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10350 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbauxfct = 0.0     |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10351 | A | Close the circuit breaker 72Q1                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10352 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbauxfct = 1.0     |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10353 | A | Open the circuit breaker 40Q4                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10354 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbbrake = 0.0      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10355 | A | Close the circuit breaker 40Q4                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10356 | R | Read Defined Variable [TT] (MPU1)li_ddk_tc2cbbrake = 1.0      |  | OK | 1 | Mphato Mphahlele - 480716 | Train |
| 10357 | A | Open the circuit breaker 50Q7                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                   |  |    |   |                              |       |
|-------|---|-------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 0.0       |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10359 | A | Close the circuit breaker 50Q7                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 1.0       |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10361 | A | Open the circuit breaker 22Q1                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 0.0      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10363 | A | Close the circuit breaker 22Q1                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 1.0      |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10365 | A | Open the circuit breaker 44Q1.                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10368 | A | Close the circuit breaker 44Q1                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 1.0 |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10371 | A | Open the circuit breaker 72Q2                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 0.0     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10373 | A | Close the circuit breaker 72Q2                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 1.0     |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10375 | A | Open the circuit breaker 25Q11                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtms1r1 = 0.0      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10377 | A | Close the circuit breaker 25Q11                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10378 | A | Open the circuit breaker 25Q15                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                                       |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 0.0                         |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10380 | A | Close the circuit breaker 25Q15                                                       |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r1 = 1.0                         |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 1.0                         |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10383 | A | Open the circuit breaker 25Q10                                                        |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 0.0                         |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 0.0                         |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10386 | A | Close the circuit breaker 25Q10                                                       |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 1.0                         |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 1.0                         |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10389 | A | Open the circuit breaker 75Q1                                                         |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10392 | A | Close the circuit breaker 75Q1                                                        |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 1.0                    |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 1.0                    |  | OK | 1 | Mphato Mphahlele -<br>480716 | Train |
| 10395 | R | On the Driver's event list, check there are<br>no IOS recorded about circuit breakers |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10396 | I | End of Test                                                                           |  | OK |   | Alleta Sekgololo -<br>417407 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 12 – Air Conditioning

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### 12.2 Instructions list

### 12.2.1 057\_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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10002 | A    | Turn Key 30A1.S1 to Active Cabin Position on TC1                                                                                                                                                                                                                                |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10003 | I    | Train Prepared in High voltage with active cab on TC1                                                                                                                                                                                                                           |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | 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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10005 | I    | Web portal guide                                                                                                                                                                                                                                                                |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | 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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10007 | A    |                                                                                                                                                                                                                                                                                 |  | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10008 | A    |                                                                                                                                                                                                                                                                                 |  | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10009 | I    | Cabin TC1                                                                                                                                                                                                                                                                       |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10010 | I    | Use the temperature sensor to verify the temperature of the cabin                                                                                                                                                                                                               |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | 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            |              | Nokuzola Mdluli - 491469 | 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            |              | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10014 | A | Select the switch 57S1 to Low Speed Ventilation                                                                                       |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10016 | A | Select the switch '57S2' to position 0                                                                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10017 | R | Temperature is set to 18°C                                                                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10018 | A | Select the switch '57S2' to position 1                                                                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10019 | R | Temperature is set to 20°C                                                                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10020 | A | Select the switch '57S2' to position 2                                                                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10021 | R | Temperature is set to 22°C                                                                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10022 | A | Select the switch '57S2' to position 3                                                                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10023 | R | Temperature is set to 24°C                                                                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10024 | A | Select the switch '57S2' to position 4                                                                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10025 | R | Temperature is set to 26°C                                                                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10026 | A | Now select the switch '57S1' to High Ventilation                                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10028 | A | Select the switch '57S2' to position 0                                                                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10029 | R | Temperature is set to 18°C                                                                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10030 | A | Select the switch '57S2' to position 1                                                                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10031 | R | Temperature is set to 20°C                                                                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |

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| 10032 | A | Select the switch '57S2' to position 2                                                                                 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10033 | R | Temperature is set to 22°C                                                                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10034 | A | Select the switch '57S2' to position 3                                                                                 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10035 | R | Temperature is set to 24°C                                                                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10036 | A | Select the switch '57S2' to position 4                                                                                 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10037 | R | Temperature is set to 26°C                                                                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10038 | I | Cabin Footrest Heater Test on TC1                                                                                      |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10039 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 0.0                                                   |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10040 | R | Foot Heater is Off                                                                                                     |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10041 | A | Simulate a failure of the heater by opening circuit breaker 57Q2                                                       |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10042 | A | Press the button 57S3                                                                                                  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10043 | R | Foot Heater is Off                                                                                                     |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 1.0                                                   |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10045 | A | Release '57S3' pushbutton                                                                                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10046 | A | Close circuit breaker 57Q2                                                                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10047 | A | Press the button 57S3 to activate the foot heater                                                                      |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 0.0                                                   |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10049 | R | Foot Heater is ON                                                                                                      |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10050 | I | HVAC Saloon TC1                                                                                                        |  | OK |   | Nokuzola Mdluli - 491469 | 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 |   | Nokuzola Mdluli - 491469 | Train |
| 10052 | A | Launch the HVAC test for TC1 car on the DDU maintenance screen                                                         |  | OK |   | Nokuzola Mdluli - 491469 | Train |

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| 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10054 | R | After 9 minutes, TC1 saloon HVAC test has passed.                                                                                                                                                       |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10056 | I | HVAC Cabin TC1                                                                                                                                                                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10057 | A | Launch the HVAC test for the TC1 Cab                                                                                                                                                                    |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10059 | R | After 9 minutes, the TC1 cabin HVAC test has passed.                                                                                                                                                    |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10061 | I | HVAC Saloon M4                                                                                                                                                                                          |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10063 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M4 car                                                                                                             |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10064 | A | Launch the HVAC test for M4 car on the DDU maintenance screen                                                                                                                                           |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10068 | I | HVAC Saloon M1                                                                                                                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10070 | A | On the maintenance software go to alarms tab clear all the alarms and events for M1 car                                                                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10071 | A | Launch the HVAC test for M1 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10073 | R | After 9 minutes, the M1 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10075 | I | HVAC Saloon M2                                                                                                                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10078 | A | Launch the HVAC test for M2 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10080 | R | After 9 minutes, the M2 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10082 | I | HVAC Saloon M3                                                                                                                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10084 | A | On the maintenance software go to alarms tab and clear all the alarms and events for M3 car                                                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10085 | A | Launch the HVAC test for M3 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10087 | R | After 9 minutes, the M3 saloon HVAC test has passed.                                                                                                                                               |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10088 | I | If the test has not passed, use the maintenance software to check which mode failed and also the alarms recorded                                                                                   |  | OK |  | Nokuzola Mdluli - 491469 | Train |

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|       |   | during testing to help with fault finding.                                                                                                                                                              |  |    |  |                          |       |
| 10089 | I | HVAC Saloon TC2                                                                                                                                                                                         |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10091 | A | On the maintenance software go to alarms tab and clear all the alarms and events for TC2 car                                                                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10092 | A | Launch the HVAC test for TC2 car on the DDU maintenance screen                                                                                                                                          |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10094 | R | After 9 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                                   |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10096 | I | HVAC Cabin TC2                                                                                                                                                                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10097 | A | Launch the HVAC test for the TC2 Cab                                                                                                                                                                    |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10099 | R | After 9 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                                   |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |

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| 10101 | A | Turn Key 30A1.S1 to Non-Active Cabin Position on TC1                                                                                                                                                                                         |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10102 | I | Cabin TC2                                                                                                                                                                                                                                    |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10103 | A | Turn Key 30A1.S1 to Active Cabin Position on TC2                                                                                                                                                                                             |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10105 | I | Check the Steps below and compare with Maintenance software                                                                                                                                                                                  |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10106 | A | Select the switch 57S1 to Low Speed Ventilation                                                                                                                                                                                              |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10108 | A | Select the switch '57S2' to position 0                                                                                                                                                                                                       |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10109 | R | Temperature is set to 18°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10110 | A | Select the switch '57S2' to position 1                                                                                                                                                                                                       |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10111 | R | Temperature is set to 20°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10112 | A | Select the switch '57S2' to position 2                                                                                                                                                                                                       |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10113 | R | Temperature is set to 22°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10114 | A | Select the switch '57S2' to position 3                                                                                                                                                                                                       |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10115 | R | Temperature is set to 24°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10116 | A | Select the switch '57S2' to position 4                                                                                                                                                                                                       |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10117 | R | Temperature is set to 26°C                                                                                                                                                                                                                   |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10118 | A | Now select the switch '57S1' to High Ventilation                                                                                                                                                                                             |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |

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|       |   | showing as INACTIVE                                                    |  |    |   |                          |       |
| 10120 | A | Select the switch '57S2' to position 0                                 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10121 | R | Temperature is set to 18°C                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10122 | A | Select the switch '57S2' to position 1                                 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10123 | R | Temperature is set to 20°C                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10124 | A | Select the switch '57S2' to position 2                                 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10125 | R | Temperature is set to 22°C                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10126 | A | Select the switch '57S2' to position 3                                 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10127 | R | Temperature is set to 24°C                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10128 | A | Select the switch '57S2' to position 4                                 |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10129 | R | Temperature is set to 26°C                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10130 | I | Cabin Footrest Heater Test on TC2                                      |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault__1 = 0.0 |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10132 | R | Foot Heater is switch Off                                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10133 | A | Simulate a failure of the heater by opening circuit breaker 57Q2       |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10134 | A | Command '57S3' pushbutton                                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault__1 = 1.0 |  | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10136 | R | Foot Heater is switch Off                                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10137 | A | Release '57S3' pushbutton                                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10138 | A | Close 57Q2                                                             |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10139 | A | Command '57S3' pushbutton                                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_hva_tc2footheaterfault__1 = 0.0 |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10141 | R | Foot Heater is switch ON                                               |  | OK |   | Nokuzola Mdluli - 491469 | Train |

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| 10142 | I | Emergency Ventilation Mode                                                                                                                                 |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10143 | R | All HVACs are working in NORMAL condition                                                                                                                  |    | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10144 | A | Switch off the catenary voltage 3kV                                                                                                                        |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10145 | R | Both Auxiliary Converter stop to work                                                                                                                      |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10146 | R | 400 V AC is not present on train                                                                                                                           |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10147 | R | No high voltage power is available on HVAC unit to operate Ventilation and Cooling or Heating.                                                             |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10148 | R | All HVAC units and Cab HVAC units stop                                                                                                                     |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10149 | R | After about 45 seconds without 400V, Auxiliary Converter will generate 400V from Train Batteries with an inverter.                                         |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10150 | R | After this time about (45s) All HVAC units will operate in "Emergency Ventilation"                                                                         |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10151 | A | Switch on the 3kV on the catenary                                                                                                                          |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10152 | R | Now, 400V AC is available by Auxiliary Converter                                                                                                           |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10154 | I | End of Test                                                                                                                                                |                                                                                     | OK |  | Nokuzola Mdluli - 491469 | Train |



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| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 13 – Driving Command

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### 13.2 Instructions list

### 13.2.1 030\_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            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10002 | I    | Initial Conditions                                              |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10003 | I    | Train should be prepared with High voltage                      |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10004 | I    | Deadman override switch 60S1 must be in OVERRIDE position       |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10005 | I    | Driving command TC1 side                                        |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10006 | I    | Direction Selector Switch TC1                                   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10007 | A    | Put the Direction selector switch 30A1.S2 in NEUTRAL position   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0           |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0           |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0           |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0           |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0           |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0           |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0           |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0           |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 0.0  |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 0.0 |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |

|       |   |                                                               |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10018 | A | Put the Direction selector switch 30A1.S2 in FORWARD position |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10019 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10020 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10021 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10022 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 1.0            |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10023 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 0.0            |  | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10024 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 1.0            |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10025 | R | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 1.0            |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10026 | R | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 1.0   |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1dsreverser1 = 0.0  |  | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10029 | A | Put the Direction selector switch 30A1.S2 in REVERSE position |  | OK |   | Thandanani Makhanya - 463827 | Train |
| 10030 | R | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10031 | R | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10032 | R | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10033 | R | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Thandanani Makhanya - 463827 | Train |
| 10034 | R | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 1.0            |  | OK | 1 | Thandanani Makhanya - 463827 | Train |
| 10035 | R | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Thandanani Makhanya - 463827 | Train |

|       |   |                                                                                 |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0                           |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0                           |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10040 | I | Reduced Power Test TC1                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10041 | I | Button Lamp 30S2 is OFF                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10042 | I | Driving mode switch in SPEED CONTROL<br>mode                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10045 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10046 | R | Button Lamp 30S2 is ON                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0               |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10049 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10050 | R | Button Lamp 30S2 is OFF                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10053 | A | Put the driving mode switch to EFFORT<br>mode                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10054 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                 |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0               |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10057 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10060 | I | It not possible to activate reduced power<br>in depot or coupling mode          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10061 | A | Put the driving mode switch to DEPOT<br>mode                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10062 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10065 | A | Release the button 30S2                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10066 | A | Put the driving mode switch to COUPLING<br>mode                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10067 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10070 | A | Release the button 30S2                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10071 | I | Master Controller / No Brake                                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10072 | I | The direction selector switch 30A1.S2<br>must be in NEUTRAL position            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10073 | I | The Master controller of Traction/Brake<br>should be on OFF position            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                             |    |      |                                 |       |
|-------|---|-----------------------------------------------------------------------------|----|------|---------------------------------|-------|
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0        | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10075 | I | The Traction Interlock Override Switch<br>31S1 should be in NORMAL position | OK |      | Thandanani Makhanya<br>- 463827 | Train |
| 10076 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                        | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10077 | R | LED 31H1 is OFF on the alarm module                                         | OK |      | Thandanani Makhanya<br>- 463827 | Train |
| 10078 | R | LED 44H4 is "ON" on the alarm module                                        | OK |      | Thandanani Makhanya<br>- 463827 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                       | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                       | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                      | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                      | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                      | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                      | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                        | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                        | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                       | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                       | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                       | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                       | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10091 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369    | OK | 5968 | Thandanani Makhanya<br>- 463827 | Train |
| 10092 | R | Read Min/Max [TT]                                                           | OK | 6000 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                           |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
|       |   | (MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369                       |  |    |   |                                 |       |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 0.0           |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 0.0           |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10101 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApd = 0.0                       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10103 | R | LED 44H4 is OFF on the alarm module                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10104 | R | LED 31H1 is "ON" on the alarm module                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                                    |  |    |      |                                 |       |
|-------|---|----------------------------------------------------------------------------------------------------|--|----|------|---------------------------------|-------|
| 10111 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                                               |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                                               |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10117 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpotionch1 :<br>5479<= x <= 6369                             |  | OK | 5968 | Thandanani Makhanya<br>- 463827 | Train |
| 10118 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpotionch2 :<br>5479<= x <= 6369                             |  | OK | 6000 | Thandanani Makhanya<br>- 463827 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 0.0                                    |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 0.0                                    |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0                                      |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0                                      |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0                                      |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0                                      |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0                             |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 = 0.0                             |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10127 | I | For safety purposes ENSURE that NO one<br>is working NEAR, OUTSIDE or on the<br>DOORS of the Train |  | OK |      | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                       |  |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10128 | A | Press Automatic Start Button to Drop the Pantographs                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10129 | A | Timer 15.0 S                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10134 | A | Put the Master controller of Traction/Brake in 100% TRACTION position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                            |  |    |       |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|---------------------------------|-------|
| 10146 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10147 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30816 | Thandanani Makhanya<br>- 463827 | Train |
| 10148 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30928 | Thandanani Makhanya<br>- 463827 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractiorr1 = 1.0           |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractiorr2 = 1.0           |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0              |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0              |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0  |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0  |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10157 | A | Put the Master controller of<br>Traction/Brake in OFF position             |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                          |  |    |      |                                 |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|---------------------------------|-------|
| 10163 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10170 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5968 | Thandanani Makhanya<br>- 463827 | Train |
| 10171 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 6016 | Thandanani Makhanya<br>- 463827 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0          |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0          |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0            |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0            |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0            |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0            |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0   |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10179 | A | Put the direction selector switch in<br>REVERSE position                 |  | OK |      | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                     |  |    |       |                              |       |
|-------|---|---------------------------------------------------------------------|--|----|-------|------------------------------|-------|
| 10180 | A | Put the Master controller of Traction/Brake in 100% BRAKE position  |  | OK |       | Thandanani Makhanya - 463827 | Train |
| 10181 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10182 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10183 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0                 |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10184 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0                 |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10185 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0                 |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10186 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0                 |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10187 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 0.0                   |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10188 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 0.0                   |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10189 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10190 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10191 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10192 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10193 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpoitionch1 : 29183<= x <= 31102 |  | OK | 30816 | Thandanani Makhanya - 463827 | Train |
| 10194 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpoitionch2 : 29183<= x <= 31102 |  | OK | 30944 | Thandanani Makhanya - 463827 | Train |
| 10195 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mtractionr1 = 0.0        |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10196 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mtractionr2 = 0.0        |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10197 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mcnoastr1 = 1.0          |  | OK | 1     | Thandanani Makhanya - 463827 | Train |

|       |   |                                                                               |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 = 0.0        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 = 0.0        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10203 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                            |  |    |       |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|---------------------------------|-------|
| 10215 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10216 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30816 | Thandanani Makhanya<br>- 463827 | Train |
| 10217 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30928 | Thandanani Makhanya<br>- 463827 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior1 = 0.0            |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractior2 = 0.0            |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>1.0  |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>1.0  |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10226 | I | Driving command TC2 side                                                   |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10227 | I | Direction Selector Switch TC2                                              |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10228 | A | Switch active cab to TC2                                                   |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10229 | A | Press 21S1 to raise the Pantographs                                        |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10230 | A | Press 22S11 to close the HSCB                                              |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10231 | A | Put the Direction selector switch 30A1.S2<br>in NEUTRAL position           |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0                      |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                  |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10233 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10237 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10240 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0            |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0            |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10249 | A | Put the Direction selector switch 30A1.S2<br>in REVERSE position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                 |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10251 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0                           |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0                           |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0                           |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0                           |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0                           |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0                           |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0                           |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10258 | A | Put Master Controller in OFF position                                           |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10259 | I | Button Lamp 30S2 is OFF                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10260 | I | Reduced Power Test TC2                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10261 | A | Put the driving mode switch in SPEED<br>CONTROL mode                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10262 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 1.0               |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10265 | R | Button Lamp 30S2 is ON                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10266 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10267 | R | Button Lamp 30S2 is OFF                                                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10270 | A | Put the driving mode switch to EFFORT<br>mode                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                              |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10271 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0           |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 1.0            |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10274 | A | Release the button 30S2 and press it again to de-activate reduced power mode |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10276 | I | It not possible to activate reduced power in depot or coupling mode          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10277 | A | Put the driving mode switch to DEPOT mode                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10278 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0           |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10281 | A | Release the button 30S2                                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10282 | A | Put the driving mode switch to COUPLING mode                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10283 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0           |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0            |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10286 | A | Release the button 30S2                                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10287 | I | Master Controller/ No Brake                                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10288 | I | The direction selector switch 30A1.S2 must be in NEUTRAL position            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10289 | I | The Master controller of Traction/Brake should be on OFF position            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                          |  |    |      |                                 |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|---------------------------------|-------|
| 10290 | I | Emergency Brake must be applied                                          |  | OK |      | Thandanani Makhanya<br>- 463827 | Train |
| 10291 | I | All doors should be closed                                               |  | OK |      | Thandanani Makhanya<br>- 463827 | Train |
| 10292 | I | The Traction Interlock Override Switch 31S1 should be in NORMAL position |  | OK |      | Thandanani Makhanya<br>- 463827 | Train |
| 10293 | R | LED 31H1 is OFF on the alarm module                                      |  | OK |      | Thandanani Makhanya<br>- 463827 | Train |
| 10294 | R | LED 44H4 is "ON" on the alarm module                                     |  | OK |      | Thandanani Makhanya<br>- 463827 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                    |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                    |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                   |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                   |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                   |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10307 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5968 | Thandanani Makhanya<br>- 463827 | Train |
| 10308 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 5968 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractio1 = 0.0         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractio2 = 0.0         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10317 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10318 | I | No emergency brake is applied                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10319 | R | LED 44H4 is OFF on the alarm module                                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10320 | R | LED 31H1 is "ON" on the alarm module                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10321 | R | Relay 31K1 and 31K2 are energized                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(BCU1)LI_Traction = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(BCU2)LI_Traction = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10325 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                                    |  |    |      |                                 |       |
|-------|---|----------------------------------------------------------------------------------------------------|--|----|------|---------------------------------|-------|
| 10328 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                                               |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                                               |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                                              |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10334 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369                           |  | OK | 5968 | Thandanani Makhanya<br>- 463827 | Train |
| 10335 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369                           |  | OK | 5968 | Thandanani Makhanya<br>- 463827 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior1 = 0.0                                    |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior2 = 0.0                                    |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0                                      |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0                                      |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0                                      |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0                                      |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0                             |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0                             |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10344 | I | For safety purposes ENSURE that NO one<br>is working NEAR, OUTSIDE or on the<br>DOORS of the Train |  | OK |      | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                       |  |    |   |                                 |       |
|-------|---|-----------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10345 | A | Press Automatic Start Button to Drop the Pantographs                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10346 | A | Timer 15.0 S                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10349 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10351 | A | Put the Master controller of Traction/Brake in 100% TRACTION position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10361 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                            |  |    |       |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|---------------------------------|-------|
| 10363 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10364 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30816 | Thandanani Makhanya<br>- 463827 | Train |
| 10365 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30832 | Thandanani Makhanya<br>- 463827 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior1 = 1.0            |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractior2 = 1.0            |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0              |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0              |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0  |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0  |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10374 | A | Put the Master controller of<br>Traction/Brake in OFF position             |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                      |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                      |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                          |  |    |      |                                 |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|---------------------------------|-------|
| 10380 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10386 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Thandanani Makhanya<br>- 463827 | Train |
| 10387 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5984 | Thandanani Makhanya<br>- 463827 | Train |
| 10388 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 5968 | Thandanani Makhanya<br>- 463827 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0          |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0          |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0            |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0            |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0            |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0            |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0   |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0   |  | OK | 0    | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                      |  |    |       |                              |       |
|-------|---|----------------------------------------------------------------------|--|----|-------|------------------------------|-------|
| 10397 | A | Put the Master controller of Traction/Brake in 100% BRAKE position   |  | OK |       | Thandanani Makhanya - 463827 | Train |
| 10398 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0                   |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10399 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0                   |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10400 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10401 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10402 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10403 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0                  |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10404 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 0.0                    |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10405 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 0.0                    |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10406 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0                   |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10407 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0                   |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10408 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0                   |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10409 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0                   |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10410 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch1 : 29183<= x <= 31102 |  | OK | 30816 | Thandanani Makhanya - 463827 | Train |
| 10411 | R | Read Min/Max [TT] (MPU1)ai_drc_tc2mcpositionch2 : 29183<= x <= 31102 |  | OK | 30832 | Thandanani Makhanya - 463827 | Train |
| 10412 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractonr1 = 0.0         |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10413 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mctractonr2 = 0.0         |  | OK | 0     | Thandanani Makhanya - 463827 | Train |
| 10414 | R | Read Defined Variable [TT] (MPU1)li_drc_tc2mcnoastr1 = 1.0           |  | OK | 1     | Thandanani Makhanya - 463827 | Train |

|       |   |                                                                               |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10420 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10424 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10428 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                          |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10429 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10430 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10431 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                            |  |    |       |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|---------------------------------|-------|
| 10432 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10433 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30816 | Thandanani Makhanya<br>- 463827 | Train |
| 10434 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30832 | Thandanani Makhanya<br>- 463827 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0            |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0            |  | OK | 0     | Thandanani Makhanya<br>- 463827 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10438 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0              |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>1.0  |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>1.0  |  | OK | 1     | Thandanani Makhanya<br>- 463827 | Train |
| 10443 | A | Put the Master controller of<br>Traction/Brake in OFF position             |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10444 | A | Put the direction switch to NEUTRAL<br>position                            |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10445 | A | Close HSCB using button 22S11                                              |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |
| 10446 | I | End of Test                                                                |  | OK |       | Thandanani Makhanya<br>- 463827 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 14 – Holding and Parking Brake

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### 14.2 Instructions list

### 14.2.1 045\_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     | 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 | 6.09  | 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 | 6.04  | 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 | 6.02  | 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     | 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 | 6     | 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 | 1.758 | 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 | 2     | 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 | 2.01  | 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 | 2.159 | 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 | 2.166 | Goitsemodimo Kgatitswe - 526511 | Train |
| 10089 | R | Measure the pressure of the test point C1.11 on TC2, test point must below 4.8                                      |  | OK | 1.68  | 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 |

|       |   |                                                                                                                                  |  |    |   |                                    |       |
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| 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 |

|       |   |                                                                                                                             |  |    |   |                                 |       |
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| 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 | 3.415 | 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 | 2.101 | 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 | 2.052 | 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 | 2.021 | 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 | 1.925 | 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 | 1.751 | 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<br>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<br>message reporting parking brake release<br>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>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 15 – Service Brake

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### 15.2 Instructions list

### 15.2.1 040\_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            |              | Sqiniseko Xulu - 493646 | Train   |
| 10002 | I    | Initial Conditions                                                                                                    |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10003 | I    | Emergency brake button 44S1 is released in both TC1 and TC2                                                           |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10004 | I    | Pressure on the main pipe should be higher than 7 bar                                                                 |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10005 | I    | The ERTMS switch 62S1 is in ISOLATION position in both TC1 and TC2                                                    |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10006 | I    | The Deadman switch 60S1 is in OVERRIDE position in both TC1 and TC2                                                   |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10007 | I    | Driving mode should be selected as COUPLE/WASH in both TC1 and TC2                                                    |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10008 | I    | Train has sufficient scotch blocks to prevent it from moving                                                          |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10009 | I    | Ensure that the propulsion system is inhibited to prevent movement when the master controller is in TRACTION position |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10010 | I    | Start of Test                                                                                                         |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10011 | I    | Brake application / release                                                                                           |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10012 | A    | Activate the cab on TC1                                                                                               |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10013 | I    | To begin test, the EPC life signal must be live                                                                       |      | OK            |              | Amanda Ntuli - 526239   | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(BCU1)LI_REGULATOR_STAT = 1.0                                                           |      | OK            | 1            | Amanda Ntuli - 526239   | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(BCU2)LI_REGULATOR_STAT = 1.0                                                           |      | OK            | 1            | Amanda Ntuli - 526239   | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(TBCU1)LI_REGULATOR_STAT = 1.0                                                          |      | OK            | 1            | Amanda Ntuli - 526239   | Train   |

|       |   |                                                                                                                                                                                                                                                                                                                                    |  |    |       |                       |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|-------|-----------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1     | Amanda Ntuli - 526239 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1     | Amanda Ntuli - 526239 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REGULATOR_STAT = 1.0                                                                                                                                                                                                                                                                       |  | OK | 1     | Amanda Ntuli - 526239 | Train |
| 10020 | A | Put the direction selector switch in<br>FORWARD position                                                                                                                                                                                                                                                                           |  | OK |       | Amanda Ntuli - 526239 | Train |
| 10021 | R | Emergency brake is released                                                                                                                                                                                                                                                                                                        |  | OK |       | Amanda Ntuli - 526239 | Train |
| 10022 | R | LED 40H1 is OFF on the alarm module                                                                                                                                                                                                                                                                                                |  | OK |       | Amanda Ntuli - 526239 | 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 |       | Amanda Ntuli - 526239 | 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 |       | Amanda Ntuli - 526239 | 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 |       | Amanda Ntuli - 526239 | Train |
| 10026 | R | SBTP TC1<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)                                                                                                                                                                                                                                                                                |  | OK | 1.424 | Amanda Ntuli - 526239 | Train |
| 10027 | R | Brake discs apply pressure on car TC1                                                                                                                                                                                                                                                                                              |  | OK |       | Amanda Ntuli - 526239 | Train |
| 10028 | R | SBTP M4<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.378 | Amanda Ntuli - 526239 | Train |
| 10029 | R | Brake discs apply pressure on car M4                                                                                                                                                                                                                                                                                               |  | OK |       | Amanda Ntuli - 526239 | Train |
| 10030 | R | SBTP M1<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.309 | Amanda Ntuli - 526239 | Train |
| 10031 | R | Brake discs apply pressure on car M1                                                                                                                                                                                                                                                                                               |  | OK |       | Amanda Ntuli - 526239 | Train |
| 10032 | R | SBTP M2<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.395 | Amanda Ntuli - 526239 | Train |
| 10033 | R | Brake discs apply pressure on car M2                                                                                                                                                                                                                                                                                               |  | OK |       | Amanda Ntuli - 526239 | Train |
| 10034 | R | SBTP M3<br>Result Min/Max : 1.29<= x <= 1.69 (Bar)                                                                                                                                                                                                                                                                                 |  | OK | 1.417 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                              |  |    |        |                       |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------|--|----|--------|-----------------------|-------|
| 10035 | R | Brake discs apply pressure on car M3                                                                                         |  | OK |        | Amanda Ntuli - 526239 | Train |
| 10036 | R | SBTP TC2<br>Result Min/Max : 1.27<= x <= 1.67 (Bar)                                                                          |  | OK | 1.379  | Amanda Ntuli - 526239 | Train |
| 10037 | R | Brake discs apply pressure on car TC2                                                                                        |  | OK |        | Amanda Ntuli - 526239 | 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 |        | Amanda Ntuli - 526239 | Train |
| 10039 | R | Read Min/Max [TT]<br>(MPU1)bcu1_bcuBpipepress : 127<= x <= 167                                                               |  | OK | 165.26 | Amanda Ntuli - 526239 | Train |
| 10040 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuBpipePress : 127<= x <= 167                                                               |  | OK | 144.07 | Amanda Ntuli - 526239 | Train |
| 10041 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcuBpipepress : 129<= x <= 169                                                              |  | OK | 138.12 | Amanda Ntuli - 526239 | Train |
| 10042 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcuBpipepress : 129<= x <= 169                                                              |  | OK | 141.28 | Amanda Ntuli - 526239 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcuBpipepress : 129<= x <= 169                                                              |  | OK | 137.61 | Amanda Ntuli - 526239 | Train |
| 10044 | R | Read Min/Max [TT]<br>(MPU1)tbcu4_bcuBpipepress : 129<= x <= 169                                                              |  | OK | 141.06 | Amanda Ntuli - 526239 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                  |  | OK | 0      | Amanda Ntuli - 526239 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                  |  | OK | 0      | Amanda Ntuli - 526239 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                  |  | OK | 0      | Amanda Ntuli - 526239 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                  |  | OK | 0      | Amanda Ntuli - 526239 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                   |  | OK | 0      | Amanda Ntuli - 526239 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                   |  | OK | 0      | Amanda Ntuli - 526239 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                               |  | OK | 0      | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                                                                                      |  |    |     |                       |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|-----|-----------------------|-------|
| 10052 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                                                                                       |  | OK | 0   | Amanda Ntuli - 526239 | Train |
| 10053 | R | Check the pressure on the brake pressure gauge on TC1<br>Read Undefined Value : x ()                                                                                                                 |  | OK | 9.9 | Amanda Ntuli - 526239 | Train |
| 10054 | R | Check the pressure on the brake pressure gauge on TC2<br>Read Undefined Value : x ()                                                                                                                 |  | OK | 9.8 | Amanda Ntuli - 526239 | Train |
| 10055 | I | The pressure showed on pressure gauge (driver desk) is the same as the measured on the test point BCTP of the car TC.                                                                                |  | OK |     | Amanda Ntuli - 526239 | Train |
| 10056 | A | Move slowly the master controller from 100% BRAKE position to OFF position. Observe the PWM behaviour of the brake cylinder pressure. it may be necessary to repeat the test until you are satisfied |  | OK |     | Amanda Ntuli - 526239 | Train |
| 10057 | I | There must not have sudden release of pressure while the master controller is slowly moved to OFF position.                                                                                          |  | OK |     | Amanda Ntuli - 526239 | Train |
| 10058 | R | Pressure on BCTP (Car TC) = 0bar (+/- 0,2bar)<br>Read Undefined Value : x ()                                                                                                                         |  | OK | 0   | Amanda Ntuli - 526239 | Train |
| 10059 | R | Pressure on SBTP (all M cars) = 0bar (+/- 0,2bar)<br>Read Undefined Value : x ()                                                                                                                     |  | OK | 0   | Amanda Ntuli - 526239 | Train |
| 10060 | R | Pressure on BCTP (all M cars) = 0bar (+/- 0,2bar)<br>Read Undefined Value : x ()                                                                                                                     |  | OK | 0   | Amanda Ntuli - 526239 | Train |
| 10061 | R | Pressure on SBTP all TC cars) = 0bar (+/- 0,2bar)<br>Read Undefined Value : x ()                                                                                                                     |  | OK | 0   | Amanda Ntuli - 526239 | Train |
| 10062 | I | It is necessary to go bogie by bogie to verify that brake pads are not in contact with the wheels                                                                                                    |  | OK |     | Amanda Ntuli - 526239 | Train |
| 10063 | R | Brake discs do not apply pressure on car TC1                                                                                                                                                         |  | OK |     | Amanda Ntuli - 526239 | Train |
| 10064 | R | Brake discs do not apply pressure on car M4                                                                                                                                                          |  | OK |     | Amanda Ntuli - 526239 | Train |
| 10065 | R | Brake discs do not apply pressure on car M1                                                                                                                                                          |  | OK |     | Amanda Ntuli - 526239 | Train |
| 10066 | R | Brake discs do not apply pressure on car M2                                                                                                                                                          |  | OK |     | Amanda Ntuli - 526239 | Train |
| 10067 | R | Brake discs do not apply pressure on car M3                                                                                                                                                          |  | OK |     | Amanda Ntuli - 526239 | Train |

|       |   |                                                             |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10068 | R | Brake discs do not apply pressure on car TC2                |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10069 | I | Holding Brake                                               |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10070 | A | Put the master controller on 100% BRAKE position            |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10083 | A | Put the master controller on OFF position                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0 |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 1.0 |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0 |  | OK | 1 | Amanda Ntuli - 526239 | Train |

|       |   |                                                             |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0 |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0  |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0  |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 0.0   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 0.0   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 0.0   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 0.0   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10096 | A | Put the driving mode switch 30S1 to<br>EFFORT position      |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10097 | A | Put the master controller on 100% BRAKE<br>position         |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |

|       |   |                                                             |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10110 | A | Position the master controller on OFF position              |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |

|       |   |                                                             |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10123 | A | Position the driving mode switch 30S1 to DEPOT position     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10124 | A | Position the master controller on 100% BRAKE position       |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0   |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10137 | A | Position the master controller on OFF position              |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_holdbrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_HoldBrake = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                   |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_holdbrake = 1.0         |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_holdbrake = 1.0         |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_holdbrake = 1.0         |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_holdbrake = 1.0         |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10150 | A | Return the driving mode switch 30S1 to<br>COUPLE / WASH position  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10151 | A | Position the master controller in 100%<br>BRAKE position          |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10152 | I | Brake isolation through the isolation cock                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10153 | I | TC1 service brake manual isolation                                |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10154 | A | Close the isolation cock C1.3.1                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10155 | R | Lamp 40H2 is ON on the alarm mode for<br>EB reduced               |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10157 | A | Put the manometer test point to BCTP                              |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10158 | R | Pressure on BCTP decreases slowly until it<br>reaches +/- 0.2 bar |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10159 | R | Brake discs are not in contact with wheels<br>on TC1 bogies       |  | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                                    |  |    |   |                       |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 1.0     |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 1.0     |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 1.0 |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                                           |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                               |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                               |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                               |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                               |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 1.0                                                                                                |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10184 | A | Open the isolation cock C1.3.1                                                                                                                            |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10185 | R | Lamp 40H2 is OFF on the alarm mode for<br>EB reduced                                                                                                      |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0                                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | 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 |   | Amanda Ntuli - 526239 | Train |
| 10188 | R | Brake discs are in contact with wheels on<br>TC1 bogies                                                                                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                                           |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                                        |  | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                     |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10207 | A | Remove manometer on TC1 BCTP point                                                                                                  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10208 | I | M4 service brake manual isolation                                                                                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10209 | A | Close the isolation cock C2.3.1                                                                                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10210 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 886: "Mechanical Brake manually isolated on M4" |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10211 | R | Lamp 40H2 is "ON" on the alarm mode for EB reduced                                                                                  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10212 | A | Put manometer on M4 BCTP point                                                                                                      |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10213 | R | Pressure measured on test point BCTP decreases slowly until 0 bar (+/-0,2bar)                                                       |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10214 | R | Brake discs are not in contact with wheels on M4 bogies                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                                    |  |    |   |                       |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 1.0  |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 1.0        |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10233 | A | Open the isolation cock C2.3.1                                     |  | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                            |  |    |   |                       |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10234 | R | Lamp 40H2 is OFF for EB reduced on the alarm module                                                                                        |  | OK |   | Amanda Ntuli - 526239 | 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 |   | Amanda Ntuli - 526239 | Train |
| 10236 | R | Brake discs are in contact with wheels on M4 bogies                                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10237 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                             |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldC = 0.0                                                                             |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10249 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                     |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10255 | A | Remove manometer on M4 BCTP point                                                                                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10256 | I | M1 service brake manual isolation                                                                                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10257 | A | Close the isolation cock C2.3.1                                                                                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10258 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 883: "Mechanical Brake manually isolated on M1" |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10259 | R | Lamp 40H2 is ON for EB reduced on the alarm module                                                                                  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10260 | A | Put manometer on M1 BCTP point                                                                                                      |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10261 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar)                            |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10262 | R | Brake discs are not in contact with wheels on M1 bogies                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                      |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                      |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 1.0                                                                     |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                  |  | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                            |  |    |   |                       |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 1.0                                                                          |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10274 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 1.0                                                                                |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10281 | A | Open the isolation cock C2.3.1                                                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10282 | R | Lamp 40H2 is OFF for EB reduced on the alarm module                                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10283 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M1 car reaches 1,49bar (+/-0,2bar) |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10284 | R | Brake discs are in contact with wheels on M1 bogies                                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                             |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10286 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                             |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                    |  |    |   |                       |       |
|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10288 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10304 | A | Remove manometer on M1 BCTP point                                  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10305 | I | M2 service brake manual isolation                                  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10306 | A | Close the isolation cock C2.3.1                                    |  | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                          |  |    |   |                       |       |
|-------|---|----------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10307 | R | Lamp 40HZ is ON for EB reduced on the alarm module                                                       |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10308 | A | Put manometer on M2 BCTP point                                                                           |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10309 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until 0bar (+/-0,2bar) |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 1.0                                          |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10311 | R | Brake discs are not in contact with wheels on M2 bogies                                                  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                           |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0                                           |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 1.0                                        |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                       |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                       |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                              |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 1.0                                              |  | OK | 1 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                            |  |    |   |                       |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10325 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                                 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10329 | A | Open the isolation cock C2.3.1                                                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10330 | R | Lamp 40H2 is OFF for EB reduced on the alarm module                                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10331 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M2 car reaches 1,49bar (+/-0,2bar) |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10332 | R | Brake discs are in contact with wheels on M2 bogies                                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                             |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeIsolDC = 0.0                                                                             |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                     |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10348 | A | Remove manometer on M2 BCTP point                                                                                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10349 | I | M3 Service brake manual isolation                                                                                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10350 | A | Close the isolation cock C2.3.1                                                                                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10351 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 885: "Mechanical Brake manually isolated on M3" |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10352 | R | Lamp 40H2 is ON for EB reduced on the alarm module                                                                                  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10353 | A | Put the manometer on the BCTP test point of M3                                                                                      |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10354 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until Obar (+/-0,2bar)                            |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10355 | R | Brake discs are not in contact with wheels on M3 bogies                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                      |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 0.0                                                                      |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 1.0                                                                     |  | OK | 1 | Amanda Ntuli - 526239 | Train |

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|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10361 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 1.0  |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 1.0        |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 1.0    |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                            |  |    |   |                       |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10380 | A | Open the isolation cock C2.3.1                                                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10381 | R | Lamp 40H2 is OFF for EB reduced on the alarm module                                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10382 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in M3 car reaches 1,49bar (+/-0,2bar) |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10383 | R | Brake discs are in contact with wheels on M3 bogies                                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                             |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldC = 0.0                                                                             |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10386 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |

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|-------|---|---------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10397 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                           |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10398 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                           |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                           |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10402 | A | Remove the manometer from the BCTP test point                                                                                         |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10403 | I | TC2 Service brake manual isolation                                                                                                    |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10404 | A | Close the isolation cock C1.3.1                                                                                                       |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10405 | R | Message on DDU warning the maintenance/driver for repair at the end of the day. IOS 882 : "Mechanical Brake manually isolated on TC2" |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10406 | R | Lamp 40H2 is ON for EB reduced on the alarm module                                                                                    |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10407 | A | Put manometer on BCTP test point                                                                                                      |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10408 | R | Pressure measured on test point BCTP decreases slowly (drain the brake reservoir) until Obar (+/-0,2bar)                              |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10409 | R | Brake discs are not in contact with wheels on TC2 bogies                                                                              |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0                                                                        |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakelsolDC = 1.0                                                                        |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0                                                                       |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0                                                                       |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0                                                                       |  | OK | 0 | Amanda Ntuli - 526239 | Train |

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|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0                                                                            |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10420 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 1.0                                                                         |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10424 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 1.0                                                                                 |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                                 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10428 | A | Open the isolation cock C1.3.1                                                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10429 | R | Lamp 40H2 is OFF for EB reduced on the alarm module                                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10430 | A | Put the manometer on the BCTP point in TC2                                                                                                 |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10431 | R | Pressure measured on test point BCTP increases slowly (brake reservoir) until service brake pressure in TC car reaches 1,47bar (+/-0,2bar) |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10432 | R | Read Defined Variable [TT]<br>(BCU2)LI_BRAKE_NOT_APPLIED = 0.0                                                                             |  | OK | 0 | Amanda Ntuli - 526239 | Train |

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|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10433 | R | Read Defined Variable [TT]<br>(TBCU1)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10434 | R | Read Defined Variable [TT]<br>(BCU1)LI_BRAKE_NOT_APPLIED = 0.0     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(TBCU2)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(TBCU3)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(TBCU4)LI_BRAKE_NOT_APPLIED = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10438 | R | Brake discs are in contact with wheels on<br>TC2 bogies            |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_servbrakeisoldc = 0.0     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ServBrakeisoldC = 0.0     |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10443 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10444 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_servbrakeisoldc = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10445 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1servicebrakedc = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10447 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10448 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10449 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2servicebrakedc = 0.0 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10450 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4servicebrakedc = 0.0  |  | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                            |  |    |   |                       |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10451 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_brakenotapp = 0.0                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10452 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_brakenotapp = 0.0                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10453 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_brakenotapp = 0.0                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10454 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_brakenotapp = 0.0                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10455 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BrakeNotApp = 0.0                                                                 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10456 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_brakenotapp = 0.0                                                                 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10457 | A | Remove the manometer from the BCTP point of TC2                                                                            |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10458 | I | BCU Fault Test                                                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10459 | I | Emergency brake must be applied to force the variables mentioned.<br>After forcing the variables, release emergency brake. |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10460 | A | Position the master controller on OFF position                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10461 | A | Put the direction selector switch in Neutral position                                                                      |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10462 | A | Force [TT] (BCU1)LO_BRK_FLT = 0.0                                                                                          |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10463 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 0.0                                                               |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10464 | A | Release [TT] (BCU1)LO_BRK_FLT                                                                                              |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10465 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc1bcufault = 1.0                                                               |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10466 | A | Force [TT] (TBCU4)LO_BRK_FLT = 0.0                                                                                         |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10467 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 0.0                                                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10468 | A | Release [TT] (TBCU4)LO_BRK_FLT                                                                                             |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10469 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m4bcufault = 1.0                                                                |  | OK | 1 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                                                      |  |    |   |                       |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10470 | A | Force [TT] (TBCU2)LO_BRK_FLT = 0.0                                                                                                                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10471 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2bcufault = 0.0                                                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10472 | A | Release [TT] (TBCU2)LO_BRK_FLT                                                                                                                                       |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10473 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m2bcufault = 1.0                                                                                                          |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10474 | A | Force [TT] (TBCU1)LO_BRK_FLT = 0.0                                                                                                                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10475 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1bcufault = 0.0                                                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10476 | A | Release [TT] (TBCU1)LO_BRK_FLT                                                                                                                                       |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10477 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m1bcufault = 1.0                                                                                                          |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10478 | A | Force [TT] (TBCU3)LO_BRK_FLT = 0.0                                                                                                                                   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10479 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3bcufault = 0.0                                                                                                          |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10480 | A | Release [TT] (TBCU3)LO_BRK_FLT                                                                                                                                       |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10481 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_m3bcufault = 1.0                                                                                                          |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10482 | A | Force [TT] (BCU2)LO_BRK_FLT = 0.0                                                                                                                                    |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10483 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2bcufault = 0.0                                                                                                         |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10484 | A | Release [TT] (BCU2)LO_BRK_FLT                                                                                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10485 | R | Read Defined Variable [TT]<br>(MPU1)li_sbk_tc2bcufault = 1.0                                                                                                         |  | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10486 | I | Wheel Slide test                                                                                                                                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10487 | A | On DDU from TC1 car, request the WSP test on test screen and perform the actions shown on DDU.                                                                       |  | OK |   | Amanda Ntuli - 526239 | 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 |   | Amanda Ntuli - 526239 | Train |
| 10489 | I | Safety requirement: [Prasa1-56]                                                                                                                                      |  | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                         |  |    |   |                       |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10490 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_BcuTstOk = 0.0                                 |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10491 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_BcuTstOk = 0.0                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10492 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_BcuTstOk = 0.0                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10493 | R | Read Defined Variable [TT]<br>(MPU1)TBCU3_BcuTstOk = 0.0                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10494 | R | Read Defined Variable [TT]<br>(MPU1)TBCU4_BcuTstOk = 0.0                                |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10495 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10496 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10497 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10498 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10499 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10500 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10501 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 1.0                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10502 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 1.0                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10503 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>ON.  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10504 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 = 0.0                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10505 | A | Force [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 = 0.0                                     |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10506 | R | The visual indication of wheel slide<br>detection (41H1) on the alarm module is<br>OFF. |  | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                 |  |    |  |                       |       |
|-------|---|-------------------------------------------------|--|----|--|-----------------------|-------|
| 10507 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr1 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10508 | A | Release [TT]<br>(MPU1)lo_sbk_tc1slipslidelampr2 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10509 | I | End of Test                                     |  | OK |  | Amanda Ntuli - 526239 | Train |

## 15.2.2 040\_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            |              | Sqiniseko Xulu - 493646 | Train   |
| 10002 | I    | Initial Conditions                                                                         |      | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10003 | I    | Car suspension is not isolated in all cars                                                 |      | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10004 | I    | Air in main pipe is 10 bar                                                                 |      | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10005 | I    | TC1                                                                                        |      | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10006 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 321.1        | Sqiniseko Xulu - 493646 | Train   |
| 10007 | R    | Read Min/Max [TT]<br>(MPU1)bcu1_bcususpess : 311<= x <= 371                                |      | OK            | 324.74       | Sqiniseko Xulu - 493646 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspsodc = 0.0                                    |      | OK            | 0            | Sqiniseko Xulu - 493646 | Train   |
| 10009 | A    | Close the isolation cock C1.10                                                             |      | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspsodc = 1.0                                    |      | OK            | 1            | Sqiniseko Xulu - 493646 | Train   |
| 10011 | R    | Check Pressure on test point C1.11.2 = Obar<br>Read Undefined Value : x ()                 |      | OK            | 0            | Sqiniseko Xulu - 493646 | Train   |
| 10012 | A    | Open the isolation cock C1.10                                                              |      | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10013 | A    | Check all test point covers have been put back in place in the brake panel and suspension. |      | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10014 | I    | M4                                                                                         |      | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10015 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 278.7        | Sqiniseko Xulu - 493646 | Train   |
| 10016 | R    | Read Min/Max [TT]<br>(MPU1)tbcu4_bcususpess : 260<= x <= 320                               |      | OK            | 278.33       | Sqiniseko Xulu - 493646 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspsodc = 0.0                                   |      | OK            | 0            | Sqiniseko Xulu - 493646 | Train   |
| 10018 | A    | Close the isolation cock C2.10                                                             |      | OK            |              | Sqiniseko Xulu - 493646 | Train   |

|       |   |                                                                                            |  |    |        |                         |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--------|-------------------------|-------|
| 10019 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Sqiniseko Xulu - 493646 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspsodc = 1.0                                   |  | OK | 1      | Sqiniseko Xulu - 493646 | Train |
| 10021 | A | Open the isolation cock C2.10                                                              |  | OK |        | Sqiniseko Xulu - 493646 | Train |
| 10022 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Sqiniseko Xulu - 493646 | Train |
| 10023 | I | M1                                                                                         |  | OK |        | Sqiniseko Xulu - 493646 | Train |
| 10024 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 288.2  | Sqiniseko Xulu - 493646 | Train |
| 10025 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcususppress : 271<= x <= 331                             |  | OK | 288.51 | Sqiniseko Xulu - 493646 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 0.0                                   |  | OK | 0      | Sqiniseko Xulu - 493646 | Train |
| 10027 | A | Close the isolation cock C2.10                                                             |  | OK |        | Sqiniseko Xulu - 493646 | Train |
| 10028 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Sqiniseko Xulu - 493646 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 1.0                                   |  | OK | 1      | Sqiniseko Xulu - 493646 | Train |
| 10030 | A | Open the isolation cock C2.10                                                              |  | OK |        | Sqiniseko Xulu - 493646 | Train |
| 10031 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Sqiniseko Xulu - 493646 | Train |
| 10032 | I | M2                                                                                         |  | OK |        | Sqiniseko Xulu - 493646 | Train |
| 10033 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 297.4  | Sqiniseko Xulu - 493646 | Train |
| 10034 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcususppress : 271<= x <= 331                             |  | OK | 298.37 | Sqiniseko Xulu - 493646 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 0.0                                   |  | OK | 0      | Sqiniseko Xulu - 493646 | Train |
| 10036 | A | Close the isolation cock C2.10                                                             |  | OK |        | Sqiniseko Xulu - 493646 | Train |
| 10037 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                                  |    |        |                            |       |
|-------|---|--------------------------------------------------------------------------------------------------|----|--------|----------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 1.0                                         | OK | 1      | Sqiniseko Xulu -<br>493646 | Train |
| 10039 | A | Open the isolation cock C2.10                                                                    | OK |        | Sqiniseko Xulu -<br>493646 | Train |
| 10040 | A | Check all test point covers have been put<br>back in place in the brake panel and<br>suspension. | OK |        | Sqiniseko Xulu -<br>493646 | Train |
| 10041 | I | M3                                                                                               | OK |        | Sqiniseko Xulu -<br>493646 | Train |
| 10042 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                            | OK | 302.6  | Sqiniseko Xulu -<br>493646 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcususppress : 260<= x <=<br>320                                | OK | 302.58 | Sqiniseko Xulu -<br>493646 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 0.0                                         | OK | 0      | Sqiniseko Xulu -<br>493646 | Train |
| 10045 | A | Close the isolation cock C2.10                                                                   | OK |        | Sqiniseko Xulu -<br>493646 | Train |
| 10046 | R | Check Pressure on test point C2.11.2 =<br>Obar<br>Read Undefined Value : x ()                    | OK | 0      | Sqiniseko Xulu -<br>493646 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 1.0                                         | OK | 1      | Sqiniseko Xulu -<br>493646 | Train |
| 10048 | A | Open the isolation cock C2.10                                                                    | OK |        | Sqiniseko Xulu -<br>493646 | Train |
| 10049 | A | Check all test point covers have been put<br>back in place in the brake panel and<br>suspension. | OK |        | Sqiniseko Xulu -<br>493646 | Train |
| 10050 | I | TC2                                                                                              | OK |        | Sqiniseko Xulu -<br>493646 | Train |
| 10051 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                            | OK | 326.6  | Sqiniseko Xulu -<br>493646 | Train |
| 10052 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuSuspPress : 311<= x<br><= 371                                 | OK | 326.88 | Sqiniseko Xulu -<br>493646 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SusplsoDC = 0.0                                         | OK | 0      | Sqiniseko Xulu -<br>493646 | Train |
| 10054 | A | Close the isolation cock C1.10                                                                   | OK |        | Sqiniseko Xulu -<br>493646 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SusplsoDC = 1.0                                         | OK | 1      | Sqiniseko Xulu -<br>493646 | Train |
| 10056 | R | Check Pressure on test point C1.11.2 =<br>Obar<br>Read Undefined Value : x ()                    | OK | 0      | Sqiniseko Xulu -<br>493646 | Train |
| 10057 | A | Open the isolation cock C1.10                                                                    | OK |        | Sqiniseko Xulu -<br>493646 | Train |

|       |   |                                                                                            |  |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10058 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10059 | I | End of Test                                                                                |  | OK |  | Sqiniseko Xulu - 493646 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 16 – Emergency Brake Interlock

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### 16.2 Instructions list

### 16.2.1 044\_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            |              | Sicelo Mtolo - 525130 | Train   |
| 10002 | I    | Emergency Brake Cylinder Pressure                                              |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10003 | I    | Pressure in the main pipe should be 10 bar +/- 0.2bar                          |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10004 | I    | The direction selector switch is in Neutral position                           |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10005 | I    | Emergency brake is applied                                                     |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10006 | A    | Measure the pressure of the BCTP point in all cars with a calibrated manometer |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10007 | R    | BCTP TC1<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 185          | Sicelo Mtolo - 525130 | Train   |
| 10008 | R    | BCTP M4<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 194          | Sicelo Mtolo - 525130 | Train   |
| 10009 | R    | BCTP M1<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 199.7        | Sicelo Mtolo - 525130 | Train   |
| 10010 | R    | BCTP M2<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 204          | Sicelo Mtolo - 525130 | Train   |
| 10011 | R    | BCTP M3<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 204.9        | Sicelo Mtolo - 525130 | Train   |
| 10012 | R    | BCTP TC2<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 173.7        | Sicelo Mtolo - 525130 | Train   |
| 10013 | I    | Emergency brake TC1                                                            |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10014 | I    | Emergency brake by Direction Switch TC1                                        |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10015 | I    | Direction selector switch is in NEUTRAL position                               |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10016 | A    | Active cab on TC1                                                              |      | OK            |              | Sicelo Mtolo - 525130 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                           |      | OK            | 1            | Sicelo Mtolo - 525130 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_tINeb = 0.0                           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |
| 10019 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tIneb = 0.0                           |      | OK            | 0            | Sicelo Mtolo - 525130 | Train   |

|       |   |                                                          |  |    |   |                       |       |
|-------|---|----------------------------------------------------------|--|----|---|-----------------------|-------|
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10024 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10025 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINb = 1.0      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10032 | A | Put the direction selector switch in<br>REVERSE position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10033 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINb = 1.0      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                                                                           |  |    |   |                       |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0                                                                      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0                                                                      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10040 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10041 | I | Emergency Brake Button TC1                                                                                                |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10042 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10043 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10044 | A | Apply emergency brake using the red<br>button 44S1                                                                        |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10045 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10046 | A | Release the button 44S1                                                                                                   |  | OK |   | Sicelo Mtolo - 525130 | 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 |   | Sicelo Mtolo - 525130 | Train |
| 10048 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10049 | A | On the non-active cab TC2, apply<br>emergency brake using the red button<br>44S1                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10050 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10051 | A | Release the button 44S1                                                                                                   |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10052 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10053 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10054 | I | Emergency Brake by Master controller<br>TC1                                                                               |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10055 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |

|       |   |                                                          |  |    |   |                       |       |
|-------|---|----------------------------------------------------------|--|----|---|-----------------------|-------|
| 10056 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10057 | A | Put the master controller in EMERGENCY<br>BRAKE position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10058 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10059 | A | Put the master controller in OFF position                |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10060 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10061 | I | PEA override TC1                                         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10062 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10063 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10064 | R | Lamp 44H5 is OFF                                         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10065 | A | Pull any PEA on train                                    |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10066 | R | Lamp 44H5 is ON                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10067 | A | Press the PEA override button 44S5                       |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10068 | A | Reset the PEA by switch 44S6                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10069 | R | Lamp 44H5 is OFF                                         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10070 | A | Press the button 44S5 to normalize PEA<br>override       |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10071 | I | Emergency brake TC2                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10072 | I | Emergency brake by Direction Switch TC2                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10073 | I | Direction selector switch is in NEUTRAL<br>position      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10074 | A | Switch active cab to TC2                                 |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10075 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                          |  |    |   |                       |       |
|-------|---|----------------------------------------------------------|--|----|---|-----------------------|-------|
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0      |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10082 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10083 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TlNeb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10090 | A | Put the direction selector switch in<br>REVERSE position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10091 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TlNeb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                                                                  |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0                                                             |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0                                                             |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0                                                             |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10098 | I | Emergency Brake Button TC2                                                                                       |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10099 | A | Apply emergency brake using the red button 44S1                                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10100 | A | Put the direction selector switch in FORWARD position                                                            |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10101 | A | Release the button 44S1                                                                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApd = 1.0                                                              |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10103 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10104 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApd = 0.0                                                              |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10105 | A | On the non-active can TC1, apply emergency brake using the red button 44S1                                       |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10106 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApd = 1.0                                                              |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10107 | A | Release the button 44S1                                                                                          |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10108 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10109 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApd = 0.0                                                              |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10110 | A | Put the direction selector switch in NEUTRAL position                                                            |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10111 | I | Emergency Brake by Master controller TC2                                                                         |  | OK |   | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                   |  |    |   |                       |       |
|-------|---|-------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10112 | A | Put the direction selector switch in FORWARD position             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10113 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0              |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10114 | A | Put the master controller in EMERGENCY BRAKE position             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10115 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0              |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10116 | A | Put the master controller in OFF position                         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10117 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0              |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10118 | I | PEA override TC2                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10119 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0              |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10120 | A | Pull any PEA on train                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10121 | R | Lamp 44H5 is ON                                                   |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10122 | A | Press the PEA override button 44S5                                |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10123 | A | Reset the PEA by switch 44S6                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10124 | R | Lamp 44H5 is OFF                                                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10125 | A | Press the button 44S5 to normalize PEA override                   |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10126 | A | Put the direction selector switch in Neutral and FORWARD position |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10127 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0              |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10128 | I | Low Pressure                                                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10129 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10130 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                  |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10131 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                  |  | OK |   | Sicelo Mtolo - 525130 | Train |

|       |   |                                                                                                          |  |    |   |                       |       |
|-------|---|----------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10132 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                                         |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10133 | R | Drain the air in the main pipe until it reaches below 6 bar, i.e. drain air to reach the range 5-5.5 bar |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10134 | R | On DDU screen, emergency brake due to low pressure appears                                               |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 0.0                                                    |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 0.0                                                    |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10137 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                                                     |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10138 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10139 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                             |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10142 | I | The pressure in the main pipe should be at least 7 bar for emergency brake to be released                |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10143 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position                      |  | OK |   | Sicelo Mtolo - 525130 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 1.0                                                    |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 1.0                                                    |  | OK | 1 | Sicelo Mtolo - 525130 | Train |
| 10146 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                                                     |  | OK | 0 | Sicelo Mtolo - 525130 | Train |
| 10147 | I | End of Test                                                                                              |  | OK |   | Sicelo Mtolo - 525130 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 17 – Fire Detection

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### 17.2 Instructions list

### 17.2.1 067\_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            |              | Mvelo Mthembu - 425564    | Train   |
| 10002 | I    | Start of Test                                                                              |      | OK            |              | Mvelo Mthembu - 425564    | Train   |
| 10003 | A    | Turn the key to Active cab                                                                 |      | OK            |              | Mvelo Mthembu - 425564    | Train   |
| 10004 | A    | Close the battery contactor 18S1                                                           |      | OK            |              | Mvelo Mthembu - 425564    | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                 |      | OK            |              | Mvelo Mthembu - 425564    | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                     |      | OK            | 1            | Mvelo Mthembu - 425564    | Train   |
| 10007 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                      |      | OK            | 2            | Mvelo Mthembu - 425564    | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)NET_FDCUPresCIP = 1.0                                  |      | OK            | 1            | Mvelo Mthembu - 425564    | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireSystemOk = 1.0                                 |      | OK            | 1            | Mvelo Mthembu - 425564    | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireLocation = 1.0                                 |      | OK            | 1            | Mvelo Mthembu - 425564    | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                       |      | OK            | 0            | Mvelo Mthembu - 425564    | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data2 = 0.0                                       |      | OK            | 0            | Mvelo Mthembu - 425564    | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data3 = 0.0                                       |      | OK            | 0            | Mvelo Mthembu - 425564    | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_DiagData = 0.0                                    |      | OK            | 0            | Mvelo Mthembu - 425564    | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                     |      | OK            | 17           | Mvelo Mthembu - 425564    | Train   |
| 10016 | I    | Fire Detection Simulation test in Saloon                                                   |      | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10017 | I    | In order to see the CCTV footage where fire was simulated, navigate through the ISO event. |      | OK            |              | Alleta Sekgololo - 417407 | Train   |

|       |   |                                                                                                                               |                                                                                   |    |    |                           |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----|---------------------------|-------|
| 10018 | I | Both cameras will be activated when a fire is detected in the saloon                                                          |                                                                                   | OK |    | Alleta Sekgololo - 417407 | Train |
| 10019 | I | All HVACs are operational                                                                                                     |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10020 | I | TC1                                                                                                                           |                                                                                   | OK |    | Mvelo Mthembu - 425564    | Train |
| 10021 | A | Simulate a fire by spraying the gas on the fire detection unit 67A4 on TC1 cab for at least 1s                                |                                                                                   | OK |    | Mvelo Mthembu - 425564    | Train |
| 10022 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                                                |                                                                                   | OK |    | Mvelo Mthembu - 425564    | Train |
| 10023 | R | HVAC stops working in the cab and TC1 saloon                                                                                  |                                                                                   | OK |    | Mvelo Mthembu - 425564    | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                                                           |                                                                                   | OK | 49 | Alleta Sekgololo - 417407 | Train |
| 10025 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1.0                                                                             |                                                                                   | OK | 1  | Alleta Sekgololo - 417407 | Train |
| 10026 | A | Reset the fire detection loop on the DDU                                                                                      |                                                                                   | OK |    | Alleta Sekgololo - 417407 | Train |
| 10027 | R | 67H1 turns OFF on the Alarm Module and NO fire detected on the DDU                                                            |                                                                                   | OK |    | Alleta Sekgololo - 417407 | Train |
| 10028 | R | The HVAC of TC1 Cab and Saloon starts working in normal condition                                                             |                                                                                   | OK |    | Alleta Sekgololo - 417407 | Train |
| 10029 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                                                             |                                                                                   | OK | 0  | Mvelo Mthembu - 425564    | 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 |    | Mvelo Mthembu - 425564    | Train |
| 10031 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                                                           |                                                                                   | OK | 17 | Mvelo Mthembu - 425564    | Train |
| 10032 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC1 car for at least 1s                                |                                                                                   | OK |    | Mvelo Mthembu - 425564    | Train |
| 10033 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on the DDU                                           |                                                                                   | OK |    | Mvelo Mthembu - 425564    | Train |
| 10034 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                                                |                                                                                   | OK |    | Mvelo Mthembu - 425564    | Train |
| 10035 | R | HVAC stop working in TC1 saloon.                                                                                              |                                                                                   | OK |    | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                                      |  |    |    |                              |       |
|-------|---|------------------------------------------------------------------------------------------------------|--|----|----|------------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49 | Alleta Sekgololo -<br>417407 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 2.0                                                 |  | OK | 2  | Alleta Sekgololo -<br>417407 | Train |
| 10038 | A | Reset the fire detection loop on the DDU                                                             |  | OK |    | Mvelo Mthembu -<br>425564    | Train |
| 10039 | R | HVAC starts working in TC1 saloon                                                                    |  | OK |    | Mvelo Mthembu -<br>425564    | Train |
| 10040 | R | Camera footage disappears from the DDU<br>screen                                                     |  | OK |    | Mvelo Mthembu -<br>425564    | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0  | Mvelo Mthembu -<br>425564    | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17 | Mvelo Mthembu -<br>425564    | 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 |    | Mvelo Mthembu -<br>425564    | Train |
| 10044 | R | The CCTV footage showing TC1 saloon<br>where the fire was detected is shown on<br>the DDU            |  | OK |    | Mvelo Mthembu -<br>425564    | Train |
| 10045 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location                    |  | OK |    | Mvelo Mthembu -<br>425564    | Train |
| 10046 | R | HVAC stop working in TC1 saloon                                                                      |  | OK |    | Mvelo Mthembu -<br>425564    | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49 | Alleta Sekgololo -<br>417407 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 4.0                                                 |  | OK | 4  | Alleta Sekgololo -<br>417407 | Train |
| 10049 | A | Reset the fire detection loop on the DDU                                                             |  | OK |    | Alleta Sekgololo -<br>417407 | Train |
| 10050 | R | HVAC starts working in TC1 saloon                                                                    |  | OK |    | Alleta Sekgololo -<br>417407 | Train |
| 10051 | R | Camera footage disappears from the DDU<br>screen                                                     |  | OK |    | Alleta Sekgololo -<br>417407 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0  | Alleta Sekgololo -<br>417407 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17 | Alleta Sekgololo -<br>417407 | Train |
| 10054 | I | M4 car Test                                                                                          |  | OK |    | Alleta Sekgololo -<br>417407 | Train |
| 10055 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A2 on M4 car for at              |  | OK |    | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                                               |  |    |    |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|----|---------------------------|-------|
|       |   | least 1s                                                                                      |  |    |    |                           |       |
| 10056 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10057 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10058 | R | HVAC unit stop in M4 saloon.                                                                  |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10059 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49 | Alleta Sekgololo - 417407 | Train |
| 10060 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32.0                                            |  | OK | 32 | Alleta Sekgololo - 417407 | Train |
| 10061 | A | Reset the fire detection loop on the DDU                                                      |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10062 | R | HVAC starts working in the saloon                                                             |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10063 | R | Camera footage disappears from the DDU screen                                                 |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10064 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0  | Alleta Sekgololo - 417407 | Train |
| 10065 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17 | Alleta Sekgololo - 417407 | Train |
| 10066 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M4 car for at least 1s |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10067 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10068 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10069 | R | HVAC stop working in the saloon                                                               |  | OK |    | Alleta Sekgololo - 417407 | Train |
| 10070 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49 | Alleta Sekgololo - 417407 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 64.0                                            |  | OK | 64 | Alleta Sekgololo - 417407 | Train |
| 10072 | A | Reset the fire detection loop on the DDU                                                      |  | OK |    | Mvelo Mthembu - 425564    | Train |
| 10073 | R | HVAC starts working in M4 saloon                                                              |  | OK |    | Mvelo Mthembu - 425564    | Train |

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|-------|---|-----------------------------------------------------------------------------------------------|--|----|-----|---------------------------|-------|
| 10074 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Mvelo Mthembu - 425564    | Train |
| 10075 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0   | Mvelo Mthembu - 425564    | Train |
| 10076 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17  | Mvelo Mthembu - 425564    | Train |
| 10077 | I | M1 car                                                                                        |  | OK |     | Mvelo Mthembu - 425564    | Train |
| 10078 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M1 car for at least 1s |  | OK |     | Alleta Sekgololo - 417407 | Train |
| 10079 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Alleta Sekgololo - 417407 | Train |
| 10080 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Alleta Sekgololo - 417407 | Train |
| 10081 | R | HVAC stop working on M1                                                                       |  | OK |     | Alleta Sekgololo - 417407 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                           |  | OK | 49  | Alleta Sekgololo - 417407 | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 256.0                                           |  | OK | 256 | Alleta Sekgololo - 417407 | Train |
| 10084 | A | Reset the fire detection loop on the DDU                                                      |  | OK |     | Alleta Sekgololo - 417407 | Train |
| 10085 | R | HVAC starts working in M1 saloon                                                              |  | OK |     | Alleta Sekgololo - 417407 | Train |
| 10086 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Alleta Sekgololo - 417407 | Train |
| 10087 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                             |  | OK | 0   | Alleta Sekgololo - 417407 | Train |
| 10088 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                           |  | OK | 17  | Alleta Sekgololo - 417407 | Train |
| 10089 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M1 car for at least 1s |  | OK |     | Alleta Sekgololo - 417407 | Train |
| 10090 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Alleta Sekgololo - 417407 | Train |
| 10091 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Alleta Sekgololo - 417407 | Train |

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|-------|---|-------------------------------------------------------------------------------------------|--|----|------|---------------------------|-------|
| 10092 | R | HVAC stop working in M1 saloon.                                                           |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Alleta Sekgololo - 417407 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 512.0                                       |  | OK | 512  | Alleta Sekgololo - 417407 | Train |
| 10095 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Mvelo Mthembu - 425564    | Train |
| 10096 | R | HVAC starts working in M1 saloon                                                          |  | OK |      | Mvelo Mthembu - 425564    | Train |
| 10097 | R | Camera footage disappears from the DDU screen                                             |  | OK |      | Mvelo Mthembu - 425564    | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0    | Mvelo Mthembu - 425564    | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17   | Mvelo Mthembu - 425564    | Train |
| 10100 | I | M2 car Test                                                                               |  | OK |      | Mvelo Mthembu - 425564    | Train |
| 10101 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M2 for at least 1s |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10102 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10103 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10104 | R | HVAC stop working in M2                                                                   |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49   | Alleta Sekgololo - 417407 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 4096.0                                      |  | OK | 4096 | Alleta Sekgololo - 417407 | Train |
| 10107 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10108 | R | HVAC starts working in M2                                                                 |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10109 | R | Camera footage disappears from DDU screen                                                 |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10111 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17   | Alleta Sekgololo - 417407 | Train |

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| 10112 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M2 for at least 1s |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10113 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10114 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10115 | R | HVAC stop working                                                                         |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10116 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49    | Alleta Sekgololo - 417407 | Train |
| 10117 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 2048.0                                      |  | OK | 2048  | Alleta Sekgololo - 417407 | Train |
| 10118 | A | Reset the fire detection loop on the DDU                                                  |  | OK |       | Mvelo Mthembu - 425564    | Train |
| 10119 | R | HVAC starts working in M2                                                                 |  | OK |       | Mvelo Mthembu - 425564    | Train |
| 10120 | R | Camera footage disappears from the DDU screen                                             |  | OK |       | Mvelo Mthembu - 425564    | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                         |  | OK | 0     | Mvelo Mthembu - 425564    | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                       |  | OK | 17    | Mvelo Mthembu - 425564    | Train |
| 10123 | I | M3 car Test                                                                               |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10124 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M3 for at least 1s |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10125 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU        |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10126 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10127 | R | HVAC stop working in M3                                                                   |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                       |  | OK | 49    | Alleta Sekgololo - 417407 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 32768.0                                     |  | OK | 32768 | Alleta Sekgololo - 417407 | Train |

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| 10130 | A | Reset the fire detection loop on the DDU                                                   |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10131 | R | HVAC starts working in M3                                                                  |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10132 | R | Camera footage disappears from the DDU screen                                              |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10133 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                        |  | OK | 17    | Alleta Sekgololo - 417407 | Train |
| 10135 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M3 for at least 1s  |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10136 | R | The CCTV footage showing M3 saloon where the fire was detected is shown on the DDU         |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10137 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10138 | R | HVAC stop working in M3                                                                    |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                        |  | OK | 49    | Alleta Sekgololo - 417407 | Train |
| 10140 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 16384.0                                      |  | OK | 16384 | Alleta Sekgololo - 417407 | Train |
| 10141 | A | Reset the fire detection loop on the DDU                                                   |  | OK |       | Mvelo Mthembu - 425564    | Train |
| 10142 | R | HVAC starts working in M3                                                                  |  | OK |       | Mvelo Mthembu - 425564    | Train |
| 10143 | R | Camera footage disappears from the DDU screen                                              |  | OK |       | Mvelo Mthembu - 425564    | Train |
| 10144 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0     | Mvelo Mthembu - 425564    | Train |
| 10145 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                        |  | OK | 17    | Mvelo Mthembu - 425564    | Train |
| 10146 | I | TC2                                                                                        |  | OK |       | Mvelo Mthembu - 425564    | Train |
| 10147 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC2 for at least 1s |  | OK |       | Mvelo Mthembu - 425564    | Train |
| 10148 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        |  | OK |       | Mvelo Mthembu - 425564    | Train |

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| 10149 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10150 | R | HVAC stops working in TC2 saloon                                                           |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10151 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                        |  | OK | 49     | Mvelo Mthembu - 425564 | Train |
| 10152 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 524288.0                                     |  | OK | 524288 | Mvelo Mthembu - 425564 | Train |
| 10153 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10154 | R | HVAC starts working in TC2                                                                 |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10155 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10156 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0      | Mvelo Mthembu - 425564 | Train |
| 10157 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                                        |  | OK | 17     | Mvelo Mthembu - 425564 | Train |
| 10158 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC2 for at least 1s |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10159 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10160 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10161 | R | HVAC stops working in TC2 saloon                                                           |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10162 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 49.0                                        |  | OK | 49     | Mvelo Mthembu - 425564 | Train |
| 10163 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 262144.0                                     |  | OK | 262144 | Mvelo Mthembu - 425564 | Train |
| 10164 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10165 | R | HVAC starts working in TC2                                                                 |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10166 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Mvelo Mthembu - 425564 | Train |
| 10167 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0      | Mvelo Mthembu - 425564 | Train |

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| 10168 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |                                                                                     | OK | 17      | Mvelo Mthembu -<br>425564    | 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 |         | Mvelo Mthembu -<br>425564    | 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 |         | Mvelo Mthembu -<br>425564    | Train |
| 10171 | R | HVAC stops working in TC2 saloon                                                                     |                                                                                     | OK |         | Mvelo Mthembu -<br>425564    | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |                                                                                     | OK | 49      | Mvelo Mthembu -<br>425564    | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 131072.0                                            |                                                                                     | OK | 131072  | Mvelo Mthembu -<br>425564    | Train |
| 10174 | A | Reset the fire detection loop on the DDU                                                             |                                                                                     | OK |         | Mvelo Mthembu -<br>425564    | Train |
| 10175 | R | HVAC starts working in TC2                                                                           |                                                                                     | OK |         | Mvelo Mthembu -<br>425564    | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |                                                                                     | OK | 0       | Mvelo Mthembu -<br>425564    | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |                                                                                     | OK | 17      | Mvelo Mthembu -<br>425564    | Train |
| 10178 | I | Fire Detection Simulation Underframe                                                                 |  | OK |         | Alleta Sekgololo -<br>417407 | Train |
| 10179 | I | TC2 ACU Test                                                                                         |                                                                                     | OK |         | Mvelo Mthembu -<br>425564    | Train |
| 10180 | A | Toggle the switch to activate a fire in the<br>ACU                                                   |                                                                                     | OK |         | Mvelo Mthembu -<br>425564    | Train |
| 10181 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location                    |                                                                                     | OK |         | Mvelo Mthembu -<br>425564    | Train |
| 10182 | R | Read Undefined Variable [TT]<br>(MPU1)FDCU_Data1                                                     |                                                                                     | OK | 2097152 | Mvelo Mthembu -<br>425564    | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0                                        |                                                                                     | OK | 0       | Mvelo Mthembu -<br>425564    | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                                        |                                                                                     | OK | 1       | Mvelo Mthembu -<br>425564    | Train |
| 10185 | A | Remove the switch and put back the cover                                                             |                                                                                     | OK |         | Mvelo Mthembu -<br>425564    | Train |
| 10186 | A | Reset the fire detection loop from the<br>DDU                                                        |                                                                                     | OK |         | Mvelo Mthembu -<br>425564    | Train |

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| 10187 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Mvelo Mthembu -<br>425564    | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Mvelo Mthembu -<br>425564    | Train |
| 10189 | I | M3 car propulsion box                                                             |  | OK |       | Mvelo Mthembu -<br>425564    | Train |
| 10190 | A | Toggle the switch to activate a fire in M3<br>propulsion box                      |  | OK |       | Alleta Sekgololo -<br>417407 | Train |
| 10191 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Alleta Sekgololo -<br>417407 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 65536.0                          |  | OK | 65536 | Alleta Sekgololo -<br>417407 | Train |
| 10193 | R | Confirm that the value above is 65536                                             |  | OK |       | Alleta Sekgololo -<br>417407 | Train |
| 10194 | A | Remove the switch and put back the cover                                          |  | OK |       | Alleta Sekgololo -<br>417407 | Train |
| 10195 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Mvelo Mthembu -<br>425564    | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Mvelo Mthembu -<br>425564    | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Mvelo Mthembu -<br>425564    | Train |
| 10198 | I | M2 car propulsion box                                                             |  | OK |       | Mvelo Mthembu -<br>425564    | Train |
| 10199 | A | Toggle the switch to activate a fire in M2<br>propulsion box                      |  | OK |       | Alleta Sekgololo -<br>417407 | Train |
| 10200 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Alleta Sekgololo -<br>417407 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 8192.0                           |  | OK | 8192  | Alleta Sekgololo -<br>417407 | Train |
| 10202 | A | Remove the switch and put back the cover                                          |  | OK |       | Alleta Sekgololo -<br>417407 | Train |
| 10203 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Mvelo Mthembu -<br>425564    | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Mvelo Mthembu -<br>425564    | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Mvelo Mthembu -<br>425564    | Train |
| 10206 | I | M1 car propulsion box                                                             |  | OK |       | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                                |  |    |      |                           |       |
|-------|---|--------------------------------------------------------------------------------|--|----|------|---------------------------|-------|
| 10207 | A | Toggle the switch to activate a fire in M1 propulsion box                      |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10208 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10209 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 1024.0                           |  | OK | 1024 | Alleta Sekgololo - 417407 | Train |
| 10210 | R | Read Defined Variable [TT] (MPU1)li_hsc_m1hscbopenr1 = 1.0                     |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10211 | A | Remove the switch and put back the cover                                       |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10212 | A | Reset the fire detection loop from the DDU                                     |  | OK |      | Mvelo Mthembu - 425564    | Train |
| 10213 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                              |  | OK | 0    | Mvelo Mthembu - 425564    | Train |
| 10214 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                            |  | OK | 17   | Mvelo Mthembu - 425564    | Train |
| 10215 | I | M4 Propulsion box                                                              |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10216 | A | Toggle the switch to activate a fire in M4 Propulsion box                      |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10217 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 128.0                            |  | OK | 128  | Alleta Sekgololo - 417407 | Train |
| 10219 | A | Remove the switch and put back the cover                                       |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10220 | A | Reset the fire detection loop from the DDU                                     |  | OK |      | Mvelo Mthembu - 425564    | Train |
| 10221 | R | Read Defined Variable [TT] (MPU1)FDCU_Data1 = 0.0                              |  | OK | 0    | Mvelo Mthembu - 425564    | Train |
| 10222 | R | Read Defined Variable [TT] (MPU1)FDCU_Status = 17.0                            |  | OK | 17   | Mvelo Mthembu - 425564    | Train |
| 10223 | I | TC1 ACU Test                                                                   |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10224 | A | Toggle the switch in TC1 to activate a fire in the ACU                         |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10225 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |  | OK |      | Alleta Sekgololo - 417407 | Train |

|       |   |                                                               |  |    |    |                              |       |
|-------|---|---------------------------------------------------------------|--|----|----|------------------------------|-------|
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 16.0         |  | OK | 16 | Alleta Sekgololo -<br>417407 | Train |
| 10227 | A | Remove the switch and put back the cover                      |  | OK |    | Alleta Sekgololo -<br>417407 | Train |
| 10228 | A | Reset the fire detection loop from the<br>DDU                 |  | OK |    | Mvelo Mthembu -<br>425564    | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0          |  | OK | 0  | Mvelo Mthembu -<br>425564    | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0        |  | OK | 17 | Mvelo Mthembu -<br>425564    | Train |
| 10231 | A | Close the HSCB                                                |  | OK |    | Mvelo Mthembu -<br>425564    | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0 |  | OK | 0  | Mvelo Mthembu -<br>425564    | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0 |  | OK | 0  | Mvelo Mthembu -<br>425564    | Train |
| 10234 | I | End of Test                                                   |  | OK |    | Mvelo Mthembu -<br>425564    | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 18 – Passenger Doors

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### 18.2 Instructions list

### 18.2.1 050\_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            |              | Anthonia Mabowa - 494131 | Train   |
| 10002 | I    | Initial Conditions                                                |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10003 | I    | All doors should be closed                                        |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10004 | I    | Speed less than 3km/h relay 61K3 is energized                     |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10005 | I    | Start of Test                                                     |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10006 | I    | Uploading procedure:                                              |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10007 | I    | Follow the below instructions to upload software on all the doors |  | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10008 | I    | Doors functional Test TC1 Cab                                     |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10009 | I    | Door authorization not possible in non-active cab                 |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10010 | A    | Remove active cab on TC1                                          |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10011 | A    | Put the door authorization switch 50S7 to DRIVER mode             |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10012 | A    | Press the AUTH LEFT button 50S5                                   |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10013 | R    | Door AUTH LEFT not possible, Lamp 50S5 is OFF                     |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10014 | A    | Press the OPEN LEFT button 50S1                                   |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10015 | R    | OPEN LEFT door not possible, Lamp 50S1 is OFF                     |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10016 | A    | Press the AUTH RIGHT button 50S6                                  |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10017 | R    | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                    |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |
| 10018 | A    | Press the OPEN RIGHT button 50S2                                  |                                                                                   | OK            |              | Anthonia Mabowa - 494131 | Train   |

|       |   |                                                                           |                                                                                     |    |   |                          |       |
|-------|---|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10019 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                            |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10020 | I | Door authorization with active cab                                        |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10021 | A | Activate cab on TC1                                                       |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0      |                                                                                     | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10023 | A | Press and hold the AUTH LEFT button 50S5                                  |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 0.0       |                                                                                     | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10025 | A | Press and hold the OPEN LEFT button 50S1                                  |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0          |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 1.0       |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10028 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour      |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10029 | R | Door safety loop is OPEN, lamp 51H1 is ON                                 |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10030 | A | Press and hold the CLOSE LEFT button 50S3                                 |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorpleftr1 = 1.0      |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlineleft = 1.0     |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10033 | R | Lamp 51H1 is OFF                                                          |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10034 | R | Check on the DDU screen that all left doors are closed and in blue colour |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10035 | A | Press and hold the AUTH RIGHT button 50S6                                 |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10036 | R | Lamp 50S6 is ON                                                           |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1authdoorpbright = 1.0       |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10038 | R | Read Defined Variable [TT]                                                |                                                                                     | OK | 0 | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                                                                               |                                                                                   |    |   |                          |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|--------------------------|-------|
|       |   | (MPU1)li_dor_tc1opendoorpbright1 = 0.0                                                                                        |                                                                                   |    |   |                          |       |
| 10039 | A | Press and hold the OPEN RIGHT button 50S2                                                                                     |                                                                                   | OK |   | Anthonia Mabowa - 494131 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                             |                                                                                   | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                             |                                                                                   | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10042 | R | Check on DDU screen that all right doors are OPEN                                                                             |                                                                                   | OK |   | Anthonia Mabowa - 494131 | Train |
| 10043 | R | Door safety loop is OPEN, lamp 51H1 is ON                                                                                     |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10044 | A | Press and hold the button 50S4 to close all right doors                                                                       |                                                                                   | OK |   | Anthonia Mabowa - 494131 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorpbright1 = 1.0                                                         |                                                                                   | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlineright = 1.0                                                        |                                                                                   | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10047 | R | Lamp 51H1 is OFF                                                                                                              |                                                                                   | OK |   | Anthonia Mabowa - 494131 | Train |
| 10048 | R | Check on the DDU screen that all right doors are closed and in blue colour                                                    |                                                                                   | OK |   | Anthonia Mabowa - 494131 | Train |
| 10049 | A | Press the AUTH LEFT button 50S5                                                                                               |                                                                                   | OK |   | Anthonia Mabowa - 494131 | Train |
| 10050 | A | Press the OPEN LEFT button 50S1                                                                                               |                                                                                   | OK |   | Anthonia Mabowa - 494131 | Train |
| 10051 | A | Press the AUTH RIGHT button 50S6                                                                                              |                                                                                   | OK |   | Anthonia Mabowa - 494131 | Train |
| 10052 | A | Press the OPEN RIGHT button 50S2                                                                                              |                                                                                   | OK |   | Anthonia Mabowa - 494131 | 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 |   | Nokuzola Mdluli - 491469 | Train |
| 10054 | A | Press the CLOSE LEFT button 50S3                                                                                              |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10055 | A | Press the CLOSE RIGHT button 50S4                                                                                             |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10056 | R | All doors are closed on the DDU screen                                                                                        |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10057 | I | Train speed more than 3km/h TC1                                                                                               |                                                                                   | OK |   | Anthonia Mabowa - 494131 | Train |

|       |   |                                                   |  |    |  |                          |       |
|-------|---|---------------------------------------------------|--|----|--|--------------------------|-------|
| 10058 | A | Open 61Q1 to switch OFF the OTDR                  |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10059 | A | Press the AUTH LEFT button 50S5                   |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10060 | A | Press the OPEN LEFT button 50S1                   |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10061 | A | Press the AUTH RIGHT button 50S6                  |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10062 | A | Press the OPEN RIGHT button 50S2                  |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10063 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0           |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10064 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0           |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10065 | R | All left doors are closed                         |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10066 | R | All right doors are closed                        |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10067 | A | Press the AUTH LEFT button 50S5                   |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10068 | A | Press the OPEN LEFT button 50S1                   |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10069 | A | Press the AUTH RIGHT button 50S6                  |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10070 | A | Press the OPEN RIGHT button 50S2                  |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10071 | R | All doors remain closed                           |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10072 | A | Release [TT] (BCU1)LO_SPEED_THRSLD1               |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10073 | A | Release [TT] (BCU2)LO_SPEED_THRSLD1               |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10074 | I | Doors functional Test TC2 Cab                     |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10075 | I | Door authorization not possible in non-active cab |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10076 | A | Press the AUTH LEFT button 50S5                   |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10077 | R | Door AUTH LEFT not possible, Lamp 50S5 is OFF     |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10078 | A | Press the OPEN LEFT button 50S1                   |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10079 | R | OPEN LEFT door is not possible, Lamp 50S1 is OFF  |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10080 | A | Press the AUTH RIGHT button 50S6                  |  | OK |  | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                       |                                                                                     |    |   |                          |       |
|-------|---|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10081 | R | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                        |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10082 | A | Press the OPEN RIGHT button 50S2                                      |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10083 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                        |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10084 | I | Door authorization with active cab                                    |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10085 | A | Activate cab on TC2                                                   |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10086 | A | Set the door authorization switch 50S7 to DRIVER mode in LV1          |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 0.0  |                                                                                     | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10088 | A | Press and hold the AUTH LEFT button 50S5                              |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpleft = 1.0     |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 0.0   |                                                                                     | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10091 | A | Press and hold the OPEN LEFT button 50S1                              |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0      |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 1.0   |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10094 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour  |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10095 | I | Door safety loop is OPEN, lamp 51H1 is ON                             |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10096 | A | Press and hold the CLOSE LEFT button 50S3                             |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0 |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpleftr1 = 1.0  |                                                                                     | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10099 | R | Lamp 51H1 is OFF                                                      |                                                                                     | OK |   | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                                                                               |                                                                                    |    |   |                          |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10100 | R | Check on the DDU screen that all left doors are closed and in blue colour                                                     |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10101 | A | Press and hold and hold the AUTH RIGHT button 50S6                                                                            |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2authdoorpbright = 1.0                                                              |                                                                                    | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10103 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2opendoorpbright1 = 0.0                                                             |                                                                                    | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10104 | A | Press and hold the OPEN RIGHT button 50S2                                                                                     |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2opendoorpbright1 = 1.0                                                             |                                                                                    | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10106 | R | Check on DDU screen that all right doors are OPEN                                                                             |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10107 | I | Door safety loop is OPEN, lamp 51H1 is ON                                                                                     |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10108 | R | Press the CLOSE RIGHT button 50S4                                                                                             |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10109 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2closedoorlineleft = 1.0                                                            |                                                                                    | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10110 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2closedoorpbright1 = 1.0                                                            |                                                                                    | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10111 | R | Lamp 51H1 is OFF                                                                                                              |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10112 | R | Check on the DDU screen that all right doors are closed and in blue colour                                                    |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10113 | A | Press the AUTH LEFT button 50S5                                                                                               |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10114 | A | Press the OPEN LEFT button 50S1                                                                                               |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10115 | A | Press the AUTH RIGHT button 50S6                                                                                              |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |
| 10116 | A | Press the OPEN RIGHT button 50S2                                                                                              |                                                                                    | OK |   | Anthonia Mabowa - 494131 | 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 |   | Anthonia Mabowa - 494131 | Train |
| 10118 | A | Press the CLOSE LEFT button 50S3                                                                                              |                                                                                    | OK |   | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                                                             |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10119 | A | Press the CLOSE RIGHT button 50S4                                                                           |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10120 | R | All doors are closed on the DDU screen                                                                      |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10121 | I | Train speed more than 3km/h TC2                                                                             |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10122 | A | Open 61Q1 to switch OFF the OTDR                                                                            |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10123 | A | Press the AUTH LEFT button 50S5                                                                             |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10124 | A | Press the OPEN LEFT button 50S1                                                                             |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10125 | A | Press the AUTH RIGHT button 50S6                                                                            |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10126 | A | Press the OPEN RIGHT button 50S2                                                                            |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10127 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0                                                                     |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10128 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0                                                                     |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10129 | R | All left doors are closed                                                                                   |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10130 | R | All right doors are closed                                                                                  |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10131 | A | Press the AUTH LEFT button 50S5                                                                             |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10132 | A | Press the OPEN LEFT button 50S1                                                                             |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10133 | A | Press the AUTH RIGHT button 50S6                                                                            |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10134 | A | Press the OPEN RIGHT button 50S2                                                                            |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10135 | R | All doors remain closed                                                                                     |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10136 | A | Release [TT] (BCU1)LO_SPEED_THRSLD1                                                                         |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10137 | A | Release [TT] (BCU2)LO_SPEED_THRSLD1                                                                         |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10138 | A | Close 61Q1 circuit breaker                                                                                  |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10139 | I | Door Obstacle Detection                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10140 | I | This test is to verify if the CCTV footage will display on the DDU when an obstacle is detected at any door |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10141 | A | Press the DOOR AUTH left button 50S5                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                   |                                                                                   |    |       |                          |       |
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| 10142 | A | Press the button 50S1 to open left doors                                          |                                                                                   | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10143 | A | Place an obstacle at the centre of any of the open doors                          |                                                                                   | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10144 | A | Close the left doors                                                              |                                                                                   | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10145 | I | The door with an obstacle will attempt to close 3 times                           |                                                                                   | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10146 | R | The door with an obstacle appears in white colour on the DDU screen               |                                                                                   | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10147 | A | Remove the obstacle                                                               |                                                                                   | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10148 | A | Open and close left doors                                                         |                                                                                   | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10149 | R | The door which had the obstacle appears closed on the DDU and it's in blue colour |                                                                                   | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10150 | I | Door Manual Opening                                                               |  | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10151 | A | All doors should be closed including the door covers in each saloon               |                                                                                   | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10152 | I | TC1                                                                               |                                                                                   | OK |       | Anthonia Mabowa - 494131 | Train |
| 10153 | A | Put the switch 50S7 in DRIVER mode                                                |                                                                                   | OK |       | Anthonia Mabowa - 494131 | Train |
| 10154 | A | Try to manually open ALL TC1 DOORS                                                |                                                                                   | OK |       | Anthonia Mabowa - 494131 | Train |
| 10155 | R | It is not possible to manually open any of the doors                              |                                                                                   | OK |       | Anthonia Mabowa - 494131 | Train |
| 10156 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA          |                                                                                   | OK |       | Anthonia Mabowa - 494131 | Train |
| 10157 | R | DOOR1 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 60.5  | Anthonia Mabowa - 494131 | Train |
| 10158 | R | DOOR2 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 76.4  | Anthonia Mabowa - 494131 | Train |
| 10159 | R | DOOR3 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 65.55 | Anthonia Mabowa - 494131 | Train |
| 10160 | R | DOOR4 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 74.6  | Anthonia Mabowa - 494131 | Train |
| 10161 | R | DOOR5 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 78.4  | Anthonia Mabowa - 494131 | Train |
| 10162 | R | DOOR6 PEA effort<br>Result Max : $x \leq 120$ (N)                                 |                                                                                   | OK | 75.5  | Anthonia Mabowa - 494131 | Train |
| 10163 | A | Manually open the doors                                                           |                                                                                   | OK |       | Anthonia Mabowa - 494131 | Train |
| 10164 | R | Doors opens freely                                                                |                                                                                   | OK |       | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                   |  |    |   |                          |       |
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| 10165 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10166 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10167 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10168 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0 |  | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0  |  | OK | 1 | Anthonia Mabowa - 494131 | Train |
| 10171 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10172 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10173 | R | The TC1 doors remains open                                        |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10174 | A | Press the button 54S3 to acknowledge PEAs                         |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10175 | A | Reset the PEA using switch 44S6                                   |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10176 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10177 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10178 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10179 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10180 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10181 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10182 | R | The TC1 doors closes                                              |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10183 | A | Activate the lockout device on ALL TC1 Doors                      |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10184 | R | Doors of TC1 appear as OUT OF SERVICE on DDU screen               |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10185 | A | Try to manually open the doors                                    |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10186 | R | It is not possible to open any of the doors                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10187 | A | Pull the PEAs                                                     |  | OK |   | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                          |  |    |       |                          |       |
|-------|---|--------------------------------------------------------------------------|--|----|-------|--------------------------|-------|
| 10188 | A | Try to manually open the doors                                           |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10189 | R | It is not possible to open any of the doors                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10190 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10191 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10192 | A | Press the OPEN LEFT button 50S1                                          |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10193 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10194 | R | All Train doors are open except for TC1 doors                            |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10196 | A | Release the lockout devices                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10197 | A | Reset the PEAs using the switch 44S6                                     |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10198 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10199 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10200 | R | Doors appears as Closed on the DDU screen                                |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10201 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0        |  | OK | 0     | Anthonia Mabowa - 494131 | Train |
| 10202 | I | M4 car                                                                   |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10203 | A | Try to manually open ALL M4 DOORS                                        |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10204 | R | It is not possible to manually open any of the doors                     |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10205 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10206 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 87.6  | Anthonia Mabowa - 494131 | Train |
| 10207 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 81.9  | Anthonia Mabowa - 494131 | Train |
| 10208 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 92.96 | Anthonia Mabowa - 494131 | Train |
| 10209 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 76.05 | Anthonia Mabowa - 494131 | Train |
| 10210 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 91.85 | Anthonia Mabowa - 494131 | Train |

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| 10211 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 104.56 | Anthonia Mabowa -<br>494131 | Train |
| 10212 | A | Manually open the doors                                          |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10213 | R | Doors opens freely                                               |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10214 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10215 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10216 | A | Press the OPEN LEFT button 50S1                                  |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10217 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorright = 1.0 |  | OK | 1      | Anthonia Mabowa -<br>494131 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorleft = 1.0  |  | OK | 1      | Anthonia Mabowa -<br>494131 | Train |
| 10220 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10221 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10222 | R | The M4 doors remains open                                        |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10223 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10224 | A | Reset the PEA using switch 44S6                                  |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10225 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10226 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10227 | A | Press the OPEN LEFT button 50S1                                  |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10228 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10229 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10230 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10231 | R | The M4 doors closes                                              |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10232 | A | Activate the lockout device on ALL M4<br>Doors                   |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10233 | R | Doors of M4 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |        | Anthonia Mabowa -<br>494131 | Train |
| 10234 | A | Try to manually open the doors                                   |  | OK |        | Anthonia Mabowa -<br>494131 | Train |

|       |   |                                                                          |  |    |       |                          |       |
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| 10235 | R | It is not possible to open any of the doors                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10236 | A | Pull the PEAs                                                            |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10237 | A | Try to manually open the doors                                           |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10238 | R | It is not possible to open any of the doors                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10239 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10240 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10241 | A | Press the OPEN LEFT button 50S1                                          |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10242 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10243 | R | All Train doors are open except for M4 doors                             |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10244 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10245 | A | Release the lockout devices                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10246 | A | Reset the PEAs using the switch 44S6                                     |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10247 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10248 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10249 | R | Doors appears as Closed on the DDU screen                                |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0     | Anthonia Mabowa - 494131 | Train |
| 10251 | I | M1 car                                                                   |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10252 | A | Try to manually open ALL M1 DOORS                                        |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10253 | R | It is not possible to manually open any of the doors                     |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10254 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10255 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 70.9  | Anthonia Mabowa - 494131 | Train |
| 10256 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 95.6  | Anthonia Mabowa - 494131 | Train |
| 10257 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 107.7 | Anthonia Mabowa - 494131 | Train |

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| 10258 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 90.65 | Anthonia Mabowa -<br>494131 | Train |
| 10259 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 63.7  | Anthonia Mabowa -<br>494131 | Train |
| 10260 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 98.5  | Anthonia Mabowa -<br>494131 | Train |
| 10261 | A | Manually open the doors                                          |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10262 | R | Doors opens freely                                               |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10263 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10264 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10265 | A | Press the OPEN LEFT button 50S1                                  |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10266 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m1opendoorright = 1.0 |  | OK | 1     | Anthonia Mabowa -<br>494131 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1     | Anthonia Mabowa -<br>494131 | Train |
| 10269 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10270 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10271 | R | The M1 doors remains open                                        |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10272 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |       | Nokuzola Mdluli -<br>491469 | Train |
| 10273 | A | Reset the PEA using switch 44S6                                  |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10274 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10275 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10276 | A | Press the OPEN LEFT button 50S1                                  |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10277 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10278 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10279 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10280 | R | The M1 doors closes                                              |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10281 | A | Activate the lockout device on ALL M1<br>Doors                   |  | OK |       | Anthonia Mabowa -<br>494131 | Train |

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|-------|---|--------------------------------------------------------------------------|--|----|-------|--------------------------|-------|
| 10282 | R | Doors of M1 appear as OUT OF SERVICE on DDU screen                       |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10283 | A | Try to manually open the doors                                           |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10284 | R | It is not possible to open any of the doors                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10285 | A | Pull the PEAs                                                            |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10286 | A | Try to manually open the doors                                           |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10287 | R | It is not possible to open any of the doors                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10288 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10289 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10290 | A | Press the OPEN LEFT button 50S1                                          |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10291 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10292 | R | All Train doors are open except for M1 doors                             |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10293 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10294 | A | Release the lockout devices                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10295 | A | Reset the PEAs using the switch 44S6                                     |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10296 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10297 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10298 | R | Doors appears as Closed on the DDU screen                                |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0     | Anthonia Mabowa - 494131 | Train |
| 10300 | I | M2 car                                                                   |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10301 | A | Try to manually open ALL M2 DOORS                                        |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10302 | R | It is not possible to manually open any of the doors                     |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10303 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10304 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 91.85 | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                  |  |    |       |                             |       |
|-------|---|------------------------------------------------------------------|--|----|-------|-----------------------------|-------|
| 10305 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 61.5  | Anthonia Mabowa -<br>494131 | Train |
| 10306 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 74.05 | Anthonia Mabowa -<br>494131 | Train |
| 10307 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 91.2  | Anthonia Mabowa -<br>494131 | Train |
| 10308 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 77.34 | Anthonia Mabowa -<br>494131 | Train |
| 10309 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 97.25 | Anthonia Mabowa -<br>494131 | Train |
| 10310 | A | Manually open the doors                                          |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10311 | R | Doors opens freely                                               |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10312 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10313 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10314 | A | Press the OPEN LEFT button 50S1                                  |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10315 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorright = 1.0 |  | OK | 1     | Anthonia Mabowa -<br>494131 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1     | Anthonia Mabowa -<br>494131 | Train |
| 10318 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10319 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10320 | R | The M2 doors remains open                                        |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10321 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10322 | A | Reset the PEA using switch 44S6                                  |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10323 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10324 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10325 | A | Press the OPEN LEFT button 50S1                                  |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10326 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10327 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10328 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |       | Anthonia Mabowa -<br>494131 | Train |
| 10329 | R | The M2 doors closes                                              |  | OK |       | Anthonia Mabowa -<br>494131 | Train |

|       |   |                                                                   |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10330 | A | Activate the lockout device on ALL M2 Doors                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10331 | R | Doors of M2 appear as OUT OF SERVICE on DDU screen                |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10332 | A | Try to manually open the doors                                    |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10333 | R | It is not possible to open any of the doors                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10334 | A | Pull the PEAs                                                     |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10335 | A | Try to manually open the doors                                    |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10336 | R | It is not possible to open any of the doors                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10337 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10338 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10339 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10340 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10341 | R | All Train doors are open except for M2 doors                      |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10342 | A | Press the button 54S3 to acknowledge PEA                          |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10343 | A | Release the lockout devices                                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10344 | A | Reset the PEAs using the switch 44S6                              |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10345 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10346 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10347 | R | Doors appears as Closed on the DDU screen                         |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10348 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10349 | I | M3 car                                                            |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10350 | A | Try to manually open ALL M3 DOORS                                 |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10351 | R | It is not possible to manually open any of the doors              |  | OK |   | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                          |  |    |       |                          |       |
|-------|---|--------------------------------------------------------------------------|--|----|-------|--------------------------|-------|
| 10352 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10353 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 68.95 | Anthonia Mabowa - 494131 | Train |
| 10354 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 89.2  | Anthonia Mabowa - 494131 | Train |
| 10355 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 89.2  | Anthonia Mabowa - 494131 | Train |
| 10356 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 72.75 | Anthonia Mabowa - 494131 | Train |
| 10357 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 63.34 | Anthonia Mabowa - 494131 | Train |
| 10358 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 94.45 | Anthonia Mabowa - 494131 | Train |
| 10359 | A | Manually open the doors                                                  |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10360 | R | Doors opens freely                                                       |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10361 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10362 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10363 | A | Press the OPEN LEFT button 50S1                                          |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10364 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorright = 1.0         |  | OK | 1     | Anthonia Mabowa - 494131 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorleft = 1.0          |  | OK | 1     | Anthonia Mabowa - 494131 | Train |
| 10367 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10368 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10369 | R | The M3 doors remains open                                                |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10370 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10371 | A | Reset the PEA using switch 44S6                                          |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10372 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10373 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10374 | A | Press the OPEN LEFT button 50S1                                          |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10375 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                   |  |    |   |                          |       |
|-------|---|-------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10376 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10377 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10378 | R | The M3 doors closes                                               |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10379 | A | Activate the lockout device on ALL M3 Doors                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10380 | R | Doors of M3 appear as OUT OF SERVICE on DDU screen                |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10381 | A | Try to manually open the doors                                    |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10382 | R | It is not possible to open any of the doors                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10383 | A | Pull the PEAs                                                     |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10384 | A | Try to manually open the doors                                    |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10385 | R | It is not possible to open any of the doors                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10386 | A | Press AUTH LEFT BUTTON 50S5                                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10387 | A | Press AUTH RIGHT BUTTON 50S6                                      |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10388 | A | Press the OPEN LEFT button 50S1                                   |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10389 | A | Press the OPEN RIGHT button 50S2                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10390 | R | All Train doors are open except for M3 doors                      |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10391 | A | Press the button 54S3 to acknowledge PEA                          |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10392 | A | Release the lockout devices                                       |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10393 | A | Reset the PEAs using the switch 44S6                              |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10394 | A | Press the CLOSE LEFT button 50S3                                  |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10395 | A | Press the CLOSE RIGHT button 50S4                                 |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10396 | R | Doors appears as Closed on the DDU screen                         |  | OK |   | Anthonia Mabowa - 494131 | Train |
| 10397 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Anthonia Mabowa - 494131 | Train |
| 10398 | I | TC2 car                                                           |  | OK |   | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                          |  |    |       |                          |       |
|-------|---|--------------------------------------------------------------------------|--|----|-------|--------------------------|-------|
| 10399 | A | Try to manually open ALL TC2 DOORS                                       |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10400 | R | It is not possible to manually open any of the doors                     |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10401 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10402 | R | DOOR1 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 104   | Anthonia Mabowa - 494131 | Train |
| 10403 | R | DOOR2 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 107.4 | Anthonia Mabowa - 494131 | Train |
| 10404 | R | DOOR3 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 77.3  | Anthonia Mabowa - 494131 | Train |
| 10405 | R | DOOR4 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 97.25 | Anthonia Mabowa - 494131 | Train |
| 10406 | R | DOOR5 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 98.35 | Anthonia Mabowa - 494131 | Train |
| 10407 | R | DOOR6 PEA effort<br>Result Max : $x \leq 120$ (N)                        |  | OK | 44.55 | Anthonia Mabowa - 494131 | Train |
| 10408 | A | Manually open the doors                                                  |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10409 | R | Doors opens freely                                                       |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10410 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10411 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10412 | A | Press the OPEN LEFT button 50S1                                          |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10413 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorright = 1.0        |  | OK | 1     | Anthonia Mabowa - 494131 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0         |  | OK | 1     | Anthonia Mabowa - 494131 | Train |
| 10416 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10417 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10418 | R | The TC2 doors remains open                                               |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10419 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |       | Nokuzola Mdluli - 491469 | Train |
| 10420 | A | Reset the PEA using switch 44S6                                          |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10421 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |       | Anthonia Mabowa - 494131 | Train |
| 10422 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |       | Anthonia Mabowa - 494131 | Train |

|       |   |                                                     |  |    |  |                          |       |
|-------|---|-----------------------------------------------------|--|----|--|--------------------------|-------|
| 10423 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10424 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10425 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10426 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10427 | R | The TC2 doors closes                                |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10428 | A | Activate the lockout device on ALL TC2 Doors        |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10429 | R | Doors of TC2 appear as OUT OF SERVICE on DDU screen |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10430 | A | Try to manually open the doors                      |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10431 | R | It is not possible to open any of the doors         |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10432 | A | Pull the PEAs                                       |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10433 | A | Try to manually open the doors                      |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10434 | R | It is not possible to open any of the doors         |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10435 | A | Press AUTH LEFT BUTTON 50S5                         |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10436 | A | Press AUTH RIGHT BUTTON 50S6                        |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10437 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10438 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10439 | R | All Train doors are open except for TC2 doors       |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA            |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10441 | A | Release the lockout devices                         |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10442 | A | Reset the PEAs using the switch 44S6                |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10443 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10444 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Anthonia Mabowa - 494131 | Train |
| 10445 | R | Doors appears as Closed on the DDU screen           |  | OK |  | Anthonia Mabowa - 494131 | Train |

|       |   |                                                                                                                                                         |  |    |   |                             |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------------|-------|
| 10446 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0                                                                                    |  | OK | 0 | Anthonia Mabowa -<br>494131 | Train |
| 10447 | I | Door cycle test                                                                                                                                         |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10448 | I | This test should be performed at the end<br>of the shift when there is no one who will<br>want to go inside the train and disrupt the<br>test cycle.    |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10449 | A | Check all the doors beep when opening<br>and closing                                                                                                    |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10450 | A | Check door lights are green when open for<br>all doors                                                                                                  |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10451 | A | Check door lights are red when closing<br>from all doors                                                                                                |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10452 | A | Launch the door cycle test from the DDU                                                                                                                 |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10453 | I | At the beginning of the next shift (test<br>should be left to run overnight), all doors<br>should still be able to open and close<br>without any issues |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10454 | R | Door cycle test is successful                                                                                                                           |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |
| 10455 | I | End Test                                                                                                                                                |  | OK |   | Nokuzola Mdluli -<br>491469 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 19 – Traction Interlock

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### 19.2 Instructions list

### 19.2.1 031\_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            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10002 | I    | Initial Conditions                                                   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10003 | I    | The direction selector switch 30A1.S2 should be in NEUTRAL position  |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10004 | I    | All doors should be closed                                           |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10005 | I    | Emergency brake should be applied                                    |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10006 | I    | PEA override switch should be in NORMAL position                     |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10007 | I    | Traction Interlock override switch 31S1 should be in NORMAL position |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10008 | I    | Backup mode switch 27S1 should be in NORMAL position                 |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10009 | I    | Start of Test                                                        |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10010 | I    | Traction Interlock TC1                                               |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10011 | A    | Active cab on TC1                                                    |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10012 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10013 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                   |      | OK            |              | Thandanani Makhanya<br>- 463827 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0             |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0            |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0           |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0            |      | OK            | 0            | Thandanani Makhanya<br>- 463827 | Train   |

|       |   |                                                                            |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10024 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10025 | I | Emergency brake is released                                                |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10036 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10037 | I | Emergency brake is released                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10048 | I | Traction interlock with Doors TC1                                      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10049 | A | Manually open any door                                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10050 | R | LED 51H1 is "ON" on alarm module                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10061 | I | Simulate train speed of 5km/h contactor<br>61K2 is closed              |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10062 | A | Energize point 41 of terminal block<br>93XT104_5 with 110V DC          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10063 | R | The opened door will automatically close                               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10074 | A | Activate any PEA                                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10075 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10076 | I | Speed is greater than 5km/h therefore all doors will remain closed     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10077 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10088 | A | Reset PEA using switch 44S6                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10099 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10100 | A | Activate any PEA                                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10101 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhb = 0.0               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhb = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10112 | A | Reset PEA using switch 44S6                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10113 | A | Close the door opened above manually                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10114 | R | Door safety loop is closed, contactor 51K1 and 51K2 are energized      |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10125 | A | Press the red button 44S1 to make an emergency brake                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10126 | R | Contactor of 44K12 and 44K11 are de-energized                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                                                           |  |    |   |                                 |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                                                |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                                      |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                                      |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10137 | A | Release the red button 44S1 for<br>emergency brake                                                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | 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 |   | Thandanani Makhanya<br>- 463827 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                                                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TlNotInhib = 1.0                                                                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TlNotInhib = 1.0                                                                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                                                                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                                                                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                                                                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0                                                      |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0                                                      |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10149 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                                                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10150 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10161 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10162 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10173 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10174 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10175 | A | Put the direction selector switch in<br>NEUTRAL Position               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0               |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                                                  |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10186 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                                                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10187 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                                                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10188 | I | Traction Interlock Override TC1                                                                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10189 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position                                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | 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 |   | Thandanani Makhanya<br>- 463827 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0                                                         |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                                        |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                                       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0                                                        |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0                                                        |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0                                                        |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 1.0                                           |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 1.0                                           |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10201 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position                                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0                                                         |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                                        |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                            |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TInotInhib = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tInotInhib = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tInotInhib = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tInotInhib = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10212 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                             |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10213 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                             |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10214 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10215 | A | Remove active cab on TC1                                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10216 | I | Traction Interlock TC2                                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10217 | A | Active Cab on TC2                                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10218 | I | The direction selector switch 30A1.S2<br>should be in NEUTRAL position     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10219 | I | All doors should be closed                                                 |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10220 | I | Emergency brake should be applied                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10221 | I | PEA override switch should be in<br>NORMAL position                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10222 | I | Traction Interlock override switch 31S1<br>should be in NORMAL position    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10223 | I | Backup mode switch 27S1 should be in<br>NORMAL position                    |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                            |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10224 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10225 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 0.0                   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhnb = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhnb = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10236 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10237 | I | Emergency brake is released                                                |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0                   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhnb = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhnb = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                            |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10248 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10249 | I | Emergency brake is released                                                |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10258 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10260 | I | Traction Interlock with Doors TC2                                          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10261 | A | Manually open any door                                                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10262 | R | LED 51H1 is "ON" on alarm module                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10273 | I | Simulate train speed of 5km/h contactor<br>61K2 is closed              |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10274 | A | Energize point 41 of terminal block<br>93XT104_5 with 110V DC          |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10275 | R | The opened door will automatically close                               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_Tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_Tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10282 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10286 | A | Activate any PEA                                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10287 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10288 | I | Speed is greater than 5km/h therefore all<br>doors will remain closed  |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10289 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10300 | A | Reset PEA using switch 44S6                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10307 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10311 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10312 | A | Activate any PEA                                                       |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10313 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10324 | A | Reset PEA using switch 44S6                                            |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10325 | A | Close the door opened above manually                                   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10326 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10337 | A | Press the red button 44S1 to make an<br>emergency brake                |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                                           |  |    |   |                                 |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                                |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                                |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0                      |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0                      |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0                    |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10348 | A | Release the red button 44S1 for<br>emergency brake                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10349 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10351 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                                |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10360 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10361 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhb = 1.0               |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10372 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10373 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10380 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10384 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10385 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10386 | A | Put the direction selector switch in<br>NEUTRAL position               |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                        |  |    |   |                                 |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10397 | I | Traction Interlock Override TC2                                        |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10398 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position         |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 1.0 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 1.0 |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10405 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10408 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10409 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position           |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |

|       |   |                                                                            |  |    |   |                                 |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|---------------------------------|-------|
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Thandanani Makhanya<br>- 463827 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhb = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhb = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhb = 0.0                  |  | OK | 0 | Thandanani Makhanya<br>- 463827 | Train |
| 10420 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |
| 10421 | I | End of Test                                                                |  | OK |   | Thandanani Makhanya<br>- 463827 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 20 – Deadman

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### 20.2 Instructions list

### 20.2.1 060\_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            |              | Amanda Ntuli - 526239 | Train   |
| 10002 | I    | Initial Conditions                                                                        |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10003 | I    | The Traction and Emergency test procedure must be completed prior to performing this test |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10004 | I    | Lamp 60H2 is OFF                                                                          |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10005 | I    | Master Controller is in Neutral position                                                  |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10006 | I    | No Driving Direction selected                                                             |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10007 | I    | Prepare train in LV ready with active cab on TC1                                          |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10008 | I    | Start of Test                                                                             |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10009 | I    | Deadman override TC1                                                                      |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                      |                                                                                     | OK            | 0            | Amanda Ntuli - 526239 | Train   |
| 10011 | A    | Put the override switch 60S1 to OVERRIDE position                                         |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10012 | R    | Lamp 60H2 is "ON" on the alarm module                                                     |  | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10013 | R    | Verify that the Deadman override indication appears on the DDU screen                     |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanoverridr2 = 1.0                      |                                                                                     | OK            | 1            | Amanda Ntuli - 526239 | Train   |
| 10015 | A    | Put the override switch 60S1 to NORMAL position                                           |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                      |                                                                                     | OK            | 0            | Amanda Ntuli - 526239 | Train   |
| 10017 | R    | Lamp 60H2 is OFF                                                                          |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |

|       |   |                                                                                          |                                                                                     |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10018 | I | Deadman by Master Controller TC1                                                         |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10020 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10022 | A | Release the Master Controller switch 30A1.S4                                             |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10024 | I | Deadman by button 60S3 TC1                                                               |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10026 | A | Press the button 60S3 and hold it while reading variable below                           |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10028 | A | Release the button 60S3                                                                  |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10030 | I | Deadman functional test TC1                                                              |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 0.0                           |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 0.0                        |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0                     |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10034 | A | Select Driving Direction to FORWARD                                                      |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                      |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10036 | I | After 2.5 seconds buzzer starts beeping                                                  |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10037 | R | Lamp 60H1 is ON                                                                          |  | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                              |                                                                                     |    |   |                       |       |
|-------|---|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 1.0                            |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 1.0                               |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10040 | I | A constant push on the button 60S3 or<br>Master controller will result in Emergency<br>brake |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10041 | A | Press and hold down the master controller<br>for about 2s                                    |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10042 | R | Lamp 60H1 is OFF                                                                             |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10043 | R | No sound from buzzer                                                                         |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10044 | A | Release master controller                                                                    |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10045 | I | After 2.5 seconds buzzer starts beeping                                                      |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10046 | R | Lamp 60H1 is ON                                                                              |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10047 | A | Press and hold the button 60S3 for about<br>2s                                               |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10048 | R | Lamp 60H1 is OFF                                                                             |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10049 | R | No sound from buzzer                                                                         |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10050 | A | Release Deadman button 60S3                                                                  |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10051 | I | After 2.5 seconds buzzer starts beeping                                                      |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10052 | R | After 5 seconds, emergency brake is<br>applied                                               |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10053 | R | Verify on the DDU that the Emergency<br>brake by Deadman indication is ON                    |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 =<br>1.0                      |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                          |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10056 | A | Select Driving direction to NEUTRAL and<br>FORWARD again to reset the emergency<br>brake     |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                          |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                                        |                                                                                     |    |   |                       |       |
|-------|---|------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10058 | A | Press down the Master controller and hold                              |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10059 | I | After 45s, emergency brake is applied                                  |    | OK |   | Amanda Ntuli - 526239 | Train |
| 10060 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0   |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10062 | A | Release the Master controller                                          |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10063 | A | Select the driving direction to NEUTRAL position                       |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                    |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10065 | A | Remove active cab on TC1                                               |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10066 | I | Deadman Override TC2                                                   |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10067 | A | Active cab on TC2                                                      |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10068 | I | Deadman override switch 60S1 must be in NORMAL position                |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanoverridr1 = 0.0   |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10070 | A | Put the Deadman override switch 60S1 to OVERRIDE position              |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10071 | R | Verify on the DDU that the Deadman override indication is ON           |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanoverridr1 = 1.0   |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10073 | R | Lamp 60H2 is ON                                                        |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10074 | A | Put the override switch 60S1 in NORMAL position                        |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanoverridr1 = 0.0   |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10076 | R | Lamp 60H2 is OFF                                                       |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                          |                                                                                     |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10077 | I | Deadman by Master Controller TC2                                                         |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10079 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 1.0                            |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10081 | A | Release the master controller                                                            |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10083 | I | Deadman by button 60S3 TC2                                                               |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10085 | A | Press the button 60S3 and hold it while reading the variable below                       |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 1.0                            |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10087 | A | Release the button 60S3                                                                  |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0                     |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10090 | I | Deadman functional test TC2                                                              |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 0.0                           |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlamp1 = 0.0                         |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10093 | A | Select Driving Direction to FORWARD                                                      |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                     |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10095 | I | After 2.5 seconds buzzer starts beeping                                                  |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10096 | R | lamp 60H1 is ON                                                                          |  | OK |   | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                        |                                                                                     |    |   |                       |       |
|-------|---|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------|-------|
| 10097 | R | Verify on the DDU screen that the Deadman active indication is ON                      |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlampr1 = 1.0                      |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 1.0                         |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10100 | I | A constant push on the button 60S3 or Master controller will result in Emergency brake |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10101 | A | Press and hold down the master controller for about 2s                                 |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10102 | R | Lamp 60H1 is OFF                                                                       |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10103 | R | No sound from buzzer                                                                   |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10104 | A | Release the master controller                                                          |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                   |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10106 | R | After 2.5 seconds buzzer starts beeping                                                |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10107 | R | After 5 seconds, emergency brake is applied                                            |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10108 | R | Verify on the DDU screen that the emergency brake applied by Deadman indication is ON  |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 1.0                   |                                                                                     | OK | 1 | Amanda Ntuli - 526239 | Train |
| 10110 | A | Select Driving direction to NEUTRAL and FORWARD again to reset the emergency brake     |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                   |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10112 | A | Press down the Master controller and hold                                              |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10113 | R | After 45s, emergency brake is applied                                                  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10114 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON                 |                                                                                     | OK |   | Amanda Ntuli - 526239 | Train |
| 10115 | R | Read Defined Variable [TT]                                                             |                                                                                     | OK | 0 | Amanda Ntuli - 526239 | Train |

|       |   |                                                  |  |    |  |                       |       |
|-------|---|--------------------------------------------------|--|----|--|-----------------------|-------|
|       |   | (MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0           |  |    |  |                       |       |
| 10116 | A | Release the Master controller                    |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10117 | A | Select the driving direction to NEUTRAL position |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10118 | I | End of test                                      |  | OK |  | Amanda Ntuli - 526239 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 21 – Rescue Mode and Emergency Disconnection

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### 21.2 Instructions list

### 21.2.1 027\_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            |              | Alleta Sekgololo - 417407 | Train   |
| 10002 | I    | Initial Conditions                                                                  |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10003 | I    | Train in Normal mode with LV ready                                                  |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10004 | I    | Emergency brake is applied due to no direction selected on Train                    |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10005 | I    | The Blue button 27S5 must be released in TC1 and TC2                                |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10006 | I    | Start of Test                                                                       |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10007 | I    | Back-up Mode TC1                                                                    |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10008 | A    | Put the switch 27S1 in BACKUP position                                              |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10009 | R    | The TCMS is not available on the DDU screen                                         |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10010 | R    | Lamp 27H2 is ON                                                                     |  | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10011 | A    | Timer 60.0 S                                                                        |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10012 | R    | Both pantographs are raised                                                         |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10013 | R    | Both HSCBs are closed                                                               |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10014 | R    | Both ACUs are operational, sound can be heard from outside the train                |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10015 | R    | All four traction units are in operation, sound can be heard from outside the train |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10016 | R    | There is a gradual increase in the main pipe pressure                               |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10017 | R    | HVAC units are operational in all cars                                              |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10018 | R    | Emergency lighting is ON in all cars                                                |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10019 | I    | Emergency Disconnection TC1                                                         |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |

|       |   |                                                               |  |    |  |                           |       |
|-------|---|---------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10020 | A | Push the button 27S5 to disconnect pantographs and open HSCBs |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10021 | R | Both pantographs are lower and HSCBs are open                 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10022 | A | Release the button 27S5                                       |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10023 | I | Traction authorization TC1                                    |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10024 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10025 | R | TA is authorized                                              |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10026 | R | Lamp 31H1 is ON on the alarm module                           |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10027 | A | Put the direction selector switch in NEUTRAL position         |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10028 | R | TA is not authorized                                          |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10029 | R | Lamp 31H1 is OFF on the alarm module                          |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10030 | I | Doors Operation TC1                                           |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10031 | A | Press the auth button 50S5 to open left doors                 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10032 | R | Check visually that all left doors are open                   |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10033 | A | Press the auth button 50S6 to open right doors                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10034 | R | Check visually that all right doors are open                  |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10035 | A | Press the button 50S3 to close all the left doors             |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10036 | R | Check visually that all left doors are closed                 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10037 | A | Press the button 50S4 to close all right doors                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10038 | R | Check visually that all right doors are closed                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10039 | I | Emergency Brake TC1                                           |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10040 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                                                  |                                                                                     |    |  |                           |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|---------------------------|-------|
| 10041 | A | Apply emergency brake using the red button 44S1                                                                  |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10042 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10043 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10044 | A | Release the emergency brake button 44S1                                                                          |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10045 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10046 | A | Apply emergency brake using by putting the Master Controller in Emergency brake position                         |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10047 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10048 | A | Put the Master controller in OFF position                                                                        |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10049 | A | Put the direction selector switch in NEUTRAL position                                                            |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10050 | A | Switch OFF the train by putting the switch 18S1 in OFF position                                                  |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10051 | A | Remove active cab on TC1                                                                                         |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10052 | I | Back-up Mode TC2                                                                                                 |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10053 | R | Train is OFF                                                                                                     |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10054 | A | Active Cab on TC2                                                                                                |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10055 | A | Switch ON the train using battery contactor 18S1                                                                 |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10056 | R | Train start-up in Normal mode, the TCMS is available on the DDU screen                                           |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10057 | A | Put the backup mode switch 27S1 in BACKUP position                                                               |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10058 | R | The TCMS is no longer available on the DDU screen                                                                |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10059 | R | Lamp 27H2 is ON                                                                                                  |  | OK |  | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                     |  |    |  |                           |       |
|-------|---|-------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10060 | A | Timer 60.0 S                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10061 | R | Both pantographs are raised                                                         |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10062 | R | Both HSCBs are closed                                                               |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10063 | R | Both ACUs are operational, sound can be heard from outside the train                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10064 | R | All four traction units are in operation, sound can be heard from outside the train |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10065 | R | There is a gradual increase in the main pipe pressure                               |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10066 | R | HVAC units are operational in all cars                                              |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10067 | R | Emergency lighting is ON in all cars                                                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10068 | I | Traction authorization TC2                                                          |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10069 | A | Put the direction selector switch in FORWARD position                               |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10070 | R | TA is authorized                                                                    |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10071 | R | Lamp 31H1 is "ON" on the alarm module                                               |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10072 | R | Relay 31K1 and 31K2 are energized                                                   |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10073 | A | Put the direction selector switch in NEUTRAL position                               |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10074 | R | TA is not authorized                                                                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10075 | R | Lamp 31H1 is OFF on the alarm module                                                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10076 | R | Relay 31K1 and 31K2 are de-energized                                                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10077 | I | Doors Operation TC2                                                                 |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10078 | A | Press the auth button 50S5 to open left doors                                       |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10079 | R | Check visually that all left doors are open                                         |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10080 | A | Press the auth button 50S6 to open right doors                                      |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10081 | R | Check visually that all right doors are open                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                                                  |  |    |  |                           |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10082 | A | Press the button 50S3 to close all the left doors                                                                |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10083 | A | Put the direction selector switch in FORWARD position                                                            |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10084 | R | Check visually that all left doors are closed                                                                    |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10085 | A | Press the button 50S4 to close all right doors                                                                   |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10086 | R | Check visually that all right doors are closed                                                                   |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10087 | I | Emergency Brake TC2                                                                                              |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10088 | A | Put the direction selector switch in NEUTRAL and again in FORWARD position to reset the emergency brake          |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10089 | A | Apply emergency brake using the red button 44S1                                                                  |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10090 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10091 | R | Release the emergency brake button 44S1                                                                          |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10092 | A | Apply emergency brake using by putting the Master controller in Emergency brake position                         |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10093 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10094 | A | Put the Master controller in OFF position                                                                        |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10095 | R | Emergency brake is applied                                                                                       |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10096 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10097 | I | Emergency Disconnection TC2                                                                                      |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10098 | A | Push the button 27S5 to disconnect pantographs and open HSCBs                                                    |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10099 | R | Both pantographs are lower and HSCBs are open                                                                    |  | OK |  | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                    |  |    |  |                              |       |
|-------|---|--------------------------------------------------------------------|--|----|--|------------------------------|-------|
| 10100 | A | Release the button 27S5                                            |  | OK |  | Alleta Sekgololo -<br>417407 | Train |
| 10101 | A | Put the direction selector switch in<br>NEUTRAL position           |  | OK |  | Alleta Sekgololo -<br>417407 | Train |
| 10102 | A | Switch OFF the train by putting the<br>switch 18S1 in OFF position |  | OK |  | Alleta Sekgololo -<br>417407 | Train |
| 10103 | R | Train is OFF                                                       |  | OK |  | Alleta Sekgololo -<br>417407 | Train |
| 10104 | A | Restart the train in Normal mode                                   |  | OK |  | Alleta Sekgololo -<br>417407 | Train |
| 10105 | I | End of Test                                                        |  | OK |  | Alleta Sekgololo -<br>417407 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 22 – ERTMS

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### 22.2 Instructions list

## 22.2.1 062\_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            |                      | Alleta Sekgololo - 417407 | Train   |
| 10002 | I    | Safety Precautions                                                                                                |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10003 | R    | The ERTMS Warning Signs are attached in both ends underneath                                                      |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10004 | I    | No one should go near the Eurobalise Antennas during the test                                                     |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10005 | I    | ERTMS sim cards installation                                                                                      |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10006 | A    | Record the serial number of the sim card and install the sim cards on MT1 and MT2 cards respectively              |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10007 | R    | Serial number for sim card installed on MT1<br>Result Min : 99999<= x ()                                          |                                                                                     | OK            | 89260420160520001826 | Alleta Sekgololo - 417407 | Train   |
| 10008 | R    | Serial number for sim card installed on MT2<br>Result Min : 99999<= x ()                                          |                                                                                     | OK            | 89260420160520001827 | Alleta Sekgololo - 417407 | Train   |
| 10009 | I    | ERTMS Complete Test                                                                                               |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10010 | I    | Perform the complete static test using the following procedure:                                                   |  | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10011 | R    | Static Test is complete                                                                                           |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10012 | I    | ERTMS Functional Test                                                                                             |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10013 | I    | The functional test should only be performed once ALL the software has been loaded and the Complete Test is done. |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10014 | I    | ERTMS Bypass                                                                                                      |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10015 | A    | Activate cab TC1                                                                                                  |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10016 | A    | Put the ERTMS isolation switch 62S1 in ISOLATION position                                                         |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10017 | R    | The IOS 524 is generated to inform the driver that the ERTMS has been                                             |                                                                                     | OK            |                      | Alleta Sekgololo - 417407 | Train   |

|       |   |                                                                                           |  |    |   |                              |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
|       |   | bypassed in LV1 cubicle on TC1 or TC2                                                     |  |    |   |                              |       |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr1 = 1.0                         |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr2 = 1.0                         |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10020 | R | ERTMS bypass led 62H1 is "ON" on<br>alarm module                                          |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10021 | R | ERTMS HMI is OFF on TC1                                                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10022 | R | ERTMS EVC unit is OFF                                                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10023 | R | The cold movement detector is ON                                                          |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10024 | A | Put the direction selector switch in<br>FORWARD position                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10025 | A | Put the Master controller in<br>EMERGENCY BRAKE position                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10026 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                                      |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10027 | A | Put Master controller in OFF position                                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10028 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10029 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                                      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10030 | A | Put the direction selector switch in<br>NEUTRAL position                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10031 | A | Put ERTMS isolation switch 62S1 in<br>NORMAL position                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr1 = 0.0                         |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr2 = 0.0                         |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10034 | R | ERTMS bypass led 62H1 is OFF on<br>alarm module                                           |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10035 | R | ERTMS HMI is ON in TC1                                                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                              |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10036 | I | ERTMS Fault Monitoring (SPP M 62/13)                                         |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10037 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10038 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10039 | A | Remove -62XP1_X06 connector                                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10040 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10041 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdc = 0.0                      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10042 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 0.0                      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 0.0                    |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsfan = 0.0                     |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10045 | I | TEMPERATURE + FAN                                                            |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10046 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10047 | A | Apply a shunt between pins 42 and 60, pin 78 and 96 on -62XP1_X06 connector. |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10048 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 1.0                    |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10050 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsfan = 1.0                     |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10051 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10052 | A | Remove all jumpers and put back the connector -62XP1_X06                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10053 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10054 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                 |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsdcdc = 1.0                    |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmstemp = 1.0                    |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10057 | I | 110V/24V converters                                                             |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10058 | A | Open circuit breaker S01 on ERTMS -<br>62A1 module                              |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10059 | A | In M2 car, open the circuit breaker 25Q6                                        |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10060 | A | Remove one DC/DC power supply                                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10061 | A | In M2 car, close the circuit breaker<br>25Q6                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10062 | A | Close circuit breaker S01 on ERTMS -<br>62A1 module                             |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmsdcdc = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10064 | A | Open circuit breaker S01 on ERTMS -<br>62A1 module                              |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10065 | A | In M2 car, open the circuit breaker 25Q6                                        |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10066 | A | Put back the DC/DC power supply                                                 |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10067 | I | INTERNAL CIRCUIT BREAKERS                                                       |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10068 | A | In M2 car, close the circuit breaker<br>25Q6                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10069 | A | Close circuit breaker S01 on ERTMS -<br>62A1 module                             |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10070 | A | Open circuit breaker F01 and close all<br>other circuit breakers from F02 - F20 |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmscb = 0.0                      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10072 | A | Close circuit breaker F01 on ERTMS -<br>62A1 module                             |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmscb = 1.0                      |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10074 | A | Open circuit breaker S01 on ERTMS -<br>62A1 module                              |  | OK |   | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                           |  |    |  |                              |       |
|-------|---|---------------------------------------------------------------------------|--|----|--|------------------------------|-------|
| 10075 | R | ERTMS EVC unit is OFF                                                     |  | OK |  | Alleta Sekgololo -<br>417407 | Train |
| 10076 | A | Normalize everything inside LV4 and<br>leave all circuit breakers closed. |  | OK |  | Alleta Sekgololo -<br>417407 | Train |
| 10077 | I | End of Test                                                               |  | OK |  | Alleta Sekgololo -<br>417407 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
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## Section 23 – On-board train data recorder

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### 23.2 Instructions list

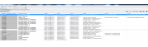
### 23.2.1 061\_REC-OTDR

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            |              | Mvelo Mthembu - 425564 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10003 | I    | Software must be updated in the OTDR with the latest baseline following below procedure            |  | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10004 | I    | Software must be updated in the CPM according to the latest baseline following the below procedure |  | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10005 | I    | Train should be OFF                                                                                |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10006 | I    | Start of Test                                                                                      |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10007 | A    | Prepare the train with active cabin on TC1                                                         |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                             |                                                                                   | OK            | 1            | Mvelo Mthembu - 425564 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                              |                                                                                   | OK            | 2            | Mvelo Mthembu - 425564 | Train   |
| 10010 | I    | Speedometer Test TC1                                                                               |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10011 | A    | Remove Active Cabin on TC1 and activate it again                                                   |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10012 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10013 | R    | Speedometer lamp is ON                                                                             |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10014 | A    | Force [TT]<br>(MPU1)lo_rec_tc2speedindtest = 1.0                                                   |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10015 | R    | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s                           |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10016 | A    | Release [TT]<br>(MPU1)lo_rec_tc2speedindtest                                                       |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10017 | I    | OTDR Reset                                                                                         |                                                                                   | OK            |              | Mvelo Mthembu - 425564 | Train   |

|       |   |                                                                             |  |    |  |                        |       |
|-------|---|-----------------------------------------------------------------------------|--|----|--|------------------------|-------|
| 10018 | I | When OTDR is resetting, the power supply LED will go OFF and ON             |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10019 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr1 = 1.0                                  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10020 | A | Force [TT] (MPU1)lo_ets_tc2rstotdrr2 = 1.0                                  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10021 | R | OTDR is OFF                                                                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10022 | I | During OTDR reset, the driver receives a warning about a loss in the OTDR.  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10023 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr1                                      |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10024 | A | Release [TT] (MPU1)lo_ets_tc2rstotdrr2                                      |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10025 | I | OTDR is ON and reset                                                        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10026 | I | Data Recording                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10027 | I | Please note the time one the DDU screen before performing the actions below |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10028 | A | Put the Traction Interlock Switch 31S1 in OVERRIDE position                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10029 | A | Put the Traction Interlock Switch 31S1 in NORMAL position                   |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10030 | A | Pull any PEA on train                                                       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10031 | A | Acknowledge the PEA using the button 54S3                                   |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10032 | A | Reset PEA using Switch 44S6                                                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10033 | A | Put the emergency brake loop override switch 44S2 in BYPASS position        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10034 | A | Put the emergency brake loop override switch 44S2 in NORMAL position        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10035 | A | Open HSCB using 22S12                                                       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10036 | A | Put the Direction Selector Switch in FORWARD position                       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10037 | A | Put the Direction Selector Switch in NEUTRAL position                       |  | OK |  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                                       |  |    |  |                        |       |
|-------|---|-------------------------------------------------------------------------------------------------------|--|----|--|------------------------|-------|
| 10038 | A | Put the Direction Selector Switch in REVERSE position                                                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10039 | A | Put the Driving Mode Switch to COUPLE/WASH mode                                                       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10040 | A | Before the next step verify that the HSCB is OPEN on the DDU - There is a risk of train movement      |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10041 | A | Put the Master Controller in TRACTION position                                                        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10042 | A | Put the Master Controller in BRAKE position                                                           |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10043 | A | Put the Master Controller in OFF position                                                             |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10044 | A | Put the Direction Selector Switch in NEUTRAL position                                                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10045 | A | Push the RED Emergency brake button 44S1                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10046 | A | Release Emergency brake button                                                                        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10047 | A | Put the Door authorization Selector Switch 50S7 in DRIVER position                                    |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10048 | A | Press the right door authorization button 50S6                                                        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10049 | A | Press the right door open button 50S2 again and then close the door the right doors using button 50S4 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10050 | A | Press the left door authorization button 50S5                                                         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10051 | A | Press the left door open button 50S1 again and then close the door the left doors using button 50S3   |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10052 | A | Put the Door authorization Selector Switch 50S7 in ERTMS position                                     |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10053 | A | Put the ERTMS isolation switch 62S1 in ISOLATION position                                             |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10054 | A | Put the ERTMS isolation switch 62S1 in NORMAL position                                                |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10055 | A | Note the time on the DDU                                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                                                                                                                                               |                                                                                     |    |  |                        |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|------------------------|-------|
| 10056 | A | Put the backup mode switch 27S1 in BACKUP position                                                                                                                                                            |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10057 | A | Switch OFF the train on TC1 cab                                                                                                                                                                               |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10058 | A | Put the backup Mode switch in NORMAL position                                                                                                                                                                 |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10059 | A | Switch active cab to TC2                                                                                                                                                                                      |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10060 | I | Events download                                                                                                                                                                                               |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10061 | A | Switch ON the train from TC2 side                                                                                                                                                                             |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10062 | A | Note the time on the DDU                                                                                                                                                                                      |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10063 | I | Use the time noted down before and after recording the data to check the events                                                                                                                               |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10064 | A | Connect to the OTDR via TCMS network and download the two latest events files. See the manual below                                                                                                           |    | OK |  | Mvelo Mthembu - 425564 | Train |
| 10065 | A | Connect to the CPM front face RJ45 port and download the latest events file. See the manual below                                                                                                             |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10066 | I | Data Recorded Reading                                                                                                                                                                                         |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10067 | A | Use SAM5 build 81 software to read data recorded from the OTDR. For the CPM use SAM5 build 88                                                                                                                 |                                                                                     | OK |  | Mvelo Mthembu - 425564 | 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 |  | Mvelo Mthembu - 425564 | Train |
| 10069 | R | CAB TC1 ACTIVE: ON                                                                                                                                                                                            |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10070 | R | CAB TC2 ACTIVE: OFF                                                                                                                                                                                           |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10071 | R | TRACTION INTERLOCK BYPASS: ON                                                                                                                                                                                 |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10072 | R | TRACTION INTERLOCK BYPASS: OFF                                                                                                                                                                                |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10073 | R | BRAKE APPLIED: ON                                                                                                                                                                                             |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10074 | R | PEA LOOP(OTDR): OFF                                                                                                                                                                                           |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10075 | R | PEA LOOP(OTDR): ON                                                                                                                                                                                            |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                                                                                              |  |    |  |                        |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|------------------------|-------|
| 10076 | R | EMERGENCY BRAKE LOOP OVERRIDE: OFF                                                                                                                           |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10077 | R | EMERGENCY BRAKE LOOP OVERRIDE: ON                                                                                                                            |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10078 | R | FORWARD: ON                                                                                                                                                  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10079 | R | TRACTION: ON                                                                                                                                                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10080 | R | BRAKE APPLIED: OFF                                                                                                                                           |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10081 | R | NO BRAKE: ON                                                                                                                                                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10082 | R | NO BRAKE: OFF                                                                                                                                                |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10083 | R | FORWARD: OFF                                                                                                                                                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10084 | R | TRACTION: OFF                                                                                                                                                |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10085 | R | REVERSE: OFF                                                                                                                                                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10086 | R | REVERSE: ON                                                                                                                                                  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10087 | R | EMERGENCY BRAKE TRAINLINE: OFF                                                                                                                               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10088 | R | EMERGENCY BRAKE TRAINLINE: ON                                                                                                                                |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10089 | R | DOOR AUTH LEFT TRAINLINE: OFF                                                                                                                                |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10090 | R | DOOR AUTH LEFT TRAINLINE: ON                                                                                                                                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10091 | R | DOOR AUTH RIGHT TRAINLINE: ON                                                                                                                                |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10092 | R | DOOR AUTH RIGHT TRAINLINE: OFF                                                                                                                               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10093 | R | ERTMS BYPASS: OFF                                                                                                                                            |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10094 | R | ERTMS BYPASS: ON                                                                                                                                             |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10095 | R | BACKUP MODE: OFF                                                                                                                                             |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10096 | R | BACKUP MODE: ON                                                                                                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10097 | R | CAB TC1 ACTIVE: OFF                                                                                                                                          |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10098 | R | CAB TC2 ACTIVE: ON                                                                                                                                           |  | OK |  | Mvelo Mthembu - 425564 | 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 |  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                              |                                                                                     |    |  |                        |       |
|-------|---|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|------------------------|-------|
|       |   | specific trainset folder TSXX>Results files> Train level.<br>XX=train number |                                                                                     |    |  |                        |       |
| 10100 | I | Speedometer Test TC2                                                         |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10101 | A | Remove active cab on TC2 and activate it again                               |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10102 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s     |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10103 | R | Speedometer lamp is ON                                                       |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10104 | A | Force [TT]<br>(MPU1)lo_rec_tc2speedindtest = 1.0                             |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10105 | R | The speedometer indicator jumps from 0km/h to 200km/h and back within 3s     |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10106 | R | Speedometer lamp is ON                                                       |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10107 | A | Release [TT]<br>(MPU1)lo_rec_tc2speedindtest                                 |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10108 | I | OTDR settings                                                                |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10109 | A | Force [TT]<br>(MPU2)_REC_TravelledDistanceKm = 10.0                          |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10110 | A | Force [TT]<br>(MPU1)_REC_TravelledDistanceKm = 10.0                          |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10111 | R | The total distance on the odometer of the DDU screen is 10km                 |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10112 | A | Release [TT]<br>(MPU1)_REC_TravelledDistanceKm                               |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10113 | A | Release [TT]<br>(MPU2)_REC_TravelledDistanceKm                               |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10114 | A | Configure the OTDR and Data plug according to the settings in the file below |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10115 | R | Train UIC is set to 0120XXX                                                  |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10116 | R | The Wheel diameter is set to 840mm on the DDU Driver screen                  |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10117 | I | End of Test                                                                  |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
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| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
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## Section 24 – External lights and Signaling

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### 24.2 Instructions list

## 24.2.1 072\_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            |              | Sqiniseko Xulu - 493646  | Train   |
| 10002 | I    | Initial Conditions                                                        |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10003 | I    | The air in the main should be at least 7.5bar                             |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10004 | I    | Start of Test                                                             |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10005 | I    | Windscreen wiper TC1                                                      |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10006 | A    | Active cab on TC1                                                         |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10007 | A    | Load the software on the TC1 wiper                                        |    | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10008 | I    | Washer tank is empty                                                      |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10009 | R    | The IOS for low level on water tank appears on the Driver's event list    |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10010 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 0.0              |                                                                                     | OK            | 0            | Sqiniseko Xulu - 493646  | Train   |
| 10011 | A    | Fill up the washer tank with clean water                                  |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10012 | R    | Read Defined Variable [TT] (MPU1)li_sgl_tc1washerlevel = 1.0              |                                                                                     | OK            | 1            | Nokuzola Mdluli - 491469 | Train   |
| 10013 | R    | No IOS regarding low water level on Driver's event list                   |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10014 | I    | This test is to verify that the Wiper is centred                          |  | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10015 | A    | Put the wiper switch on Wash position                                     |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10016 | R    | Water is spraying on the windscreen; the wiper is cleaning the windscreen |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10017 | A    | Put the wiper switch to intermittent position                             |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |
| 10018 | R    | The wiper is operating properly on intermittent position                  |                                                                                     | OK            |              | Sqiniseko Xulu - 493646  | Train   |

|       |   |                                                                                                                                         |                                                                                   |    |   |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|---------------------------|-------|
| 10019 | A | Put the wiper switch to low speed position                                                                                              |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10020 | R | The wiper is operating properly on low speed                                                                                            |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10021 | A | Put the wiper switch to high speed position                                                                                             |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10022 | R | Verify that the wiper does not lie too much on the left or right                                                                        |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10023 | A | Verify that the area wiped is at least as shown in the image attached                                                                   |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10024 | A | Put the swiper switch on OFF position                                                                                                   |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10025 | R | Wiper stops, no water is spraying on windscreen                                                                                         |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10026 | I | Mirrors TC1                                                                                                                             |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10027 | A | Login as a Maintainer ID: 70979080                                                                                                      |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10028 | I | It is necessary to open and close each mirror several times to ensure that it is working properly                                       |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10029 | A | Press the DOOR AUTH left button 50S5                                                                                                    |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10030 | A | Turn the switch 70S10 to the left to open the left mirror                                                                               |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 1.0                                                                          |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646   | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                         |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646   | 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 |   | Siphehile Mchunu - 491465 | Train |
| 10034 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10035 | A | Press 50S3 left door close button                                                                                                       |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10036 | R | The mirror is properly closed                                                                                                           |                                                                                   | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                          |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646   | Train |

|       |   |                                                                                                                                                  |  |    |   |                               |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                                  |  | OK | 0 | Sqiniseko Xulu -<br>493646    | Train |
| 10039 | A | Press the DOOR AUTH right button 50S6                                                                                                            |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10040 | A | Turn the switch 70S10 to the right to<br>open the right mirror                                                                                   |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                                   |  | OK | 0 | Sqiniseko Xulu -<br>493646    | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 1.0                                                                                  |  | OK | 1 | Sqiniseko Xulu -<br>493646    | 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 |   | Siphesihle Mchunu -<br>491465 | Train |
| 10044 | R | Verify that there is no leak on the mirror's<br>pneumatic piping                                                                                 |  | OK |   | Nokuzola Mdluli -<br>491469   | Train |
| 10045 | A | Press 50S4 right door close button                                                                                                               |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10046 | R | The mirror is properly closed                                                                                                                    |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                                   |  | OK | 0 | Sqiniseko Xulu -<br>493646    | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                                  |  | OK | 0 | Sqiniseko Xulu -<br>493646    | Train |
| 10049 | A | Press the DOOR AUTH left button 50S5                                                                                                             |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10050 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror =<br>1.0                                                                                                   |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10051 | R | Left mirror is open                                                                                                                              |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10052 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror =<br>0.0                                                                                                   |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10053 | R | Left mirror closes                                                                                                                               |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10054 | A | Press the DOOR AUTH right button 50S6                                                                                                            |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10055 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror<br>= 1.0                                                                                                  |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10056 | R | Right mirror opens                                                                                                                               |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |
| 10057 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror<br>= 0.0                                                                                                  |  | OK |   | Sqiniseko Xulu -<br>493646    | Train |

|       |   |                                                                                |                                                                                     |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10058 | R | Right mirror closes                                                            |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10059 | A | Press the button 50S3 and 50S4 to reset door authorization                     |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10060 | A | Release [TT] (MPU1)lo_sgl_tc1leftmirror                                        |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10061 | A | Release [TT] (MPU1)lo_sgl_tc1rightmirror                                       |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10062 | A | Isolate the valve H1.5/1 and H1.5/2                                            |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10063 | R | Check that the left and right mirrors can be folded manually                   |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10064 | A | Normalise the valve H1.5/1 and H1.5/2                                          |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10065 | A | Login on the DDU screen using the driver's code 70787878                       |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10066 | A | Go to Command Screen                                                           |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10067 | A | Authorise OPEN DOOR LEFT and RIGHT using the button 50S5 and 50S6 respectively |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10068 | A | On the DDU Command screen, open the left mirror using the virtual button       |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10069 | R | Left mirror opens                                                              |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10070 | A | Press virtual button to open right mirror                                      |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10071 | R | Right mirror opens                                                             |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10072 | A | Press the button 50S3 and 50S4 to reset door authorization                     |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10073 | R | Both mirrors close                                                             |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10074 | A | Remove active cab on TC1                                                       |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10075 | I | External visibility TC2                                                        |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10076 | I | Windscreen wiper TC2                                                           |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10077 | A | Active cab on TC2                                                              |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10078 | I | Load the software on the TC2 wiper                                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10079 | I | Washer tank is empty                                                           |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                  |                                                                                     |    |   |                          |       |
|-------|---|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10080 | R | The IOS for low level on water tank appears on the Driver's event list           |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1) Li_SGL_Tc2WasherLevel = 0.0                    |                                                                                     | OK | 0 | Sqiniseko Xulu - 493646  | Train |
| 10082 | A | Fill up the washer tank with clean water                                         |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10083 | R | Read Defined Variable [TT] (MPU1) Li_SGL_Tc2WasherLevel = 1.0                    |                                                                                     | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10084 | R | No IOS regarding low water level on Driver's event list                          |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10085 | I | This test is to verify that the Wiper is centred                                 |    | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10086 | A | Put the swiper switch on Wash position                                           |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10087 | R | Water is spraying on the windscreen, the wiper is cleaning the windscreen        |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10088 | A | Put the wiper switch to intermittent position                                    |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10089 | R | The wiper is operating properly on intermittent position                         |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10090 | A | Put the wiper switch to low speed position                                       |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10091 | R | The wiper is operating properly on low speed                                     |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10092 | A | Put the wiper switch to high speed position                                      |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10093 | A | Verify that the wiper does not lie too much on the left or right                 |  | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10094 | R | Verify that the area wiped is at least as shown in the image above               |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10095 | A | Put the wiper switch on OFF position                                             |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10096 | R | Wiper stops, no water is spraying on windscreen                                  |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10097 | I | Mirrors TC2                                                                      |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10098 | A | Login as a Driver. ID:70787878                                                   |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |
| 10099 | I | It is necessary to open and close each mirror several times to ensure that it is |                                                                                     | OK |   | Sqiniseko Xulu - 493646  | Train |

|       |   |                                                                                                                                         |  |    |   |                           |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
|       |   | working properly                                                                                                                        |  |    |   |                           |       |
| 10100 | A | Press the DOOR AUTH left button 50S5                                                                                                    |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10101 | A | Turn the switch 70S10 to the left to open the left mirror                                                                               |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 1.0                                                                          |  | OK | 1 | Sqiniseko Xulu - 493646   | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                                                                         |  | OK | 0 | Sqiniseko Xulu - 493646   | 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 |   | Siphehile Mchunu - 491465 | Train |
| 10105 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10106 | A | Press 50S3 left door close button                                                                                                       |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10107 | R | The mirror is properly closed                                                                                                           |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                                                                          |  | OK | 0 | Sqiniseko Xulu - 493646   | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                                                                         |  | OK | 0 | Sqiniseko Xulu - 493646   | Train |
| 10110 | A | Press the DOOR AUTH right button 50S6                                                                                                   |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10111 | A | Turn the switch 70S10 to the right to open the right mirror                                                                             |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                                                                          |  | OK | 0 | Sqiniseko Xulu - 493646   | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 1.0                                                                         |  | OK | 1 | Sqiniseko Xulu - 493646   | 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 |   | Siphehile Mchunu - 491465 | Train |
| 10115 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10116 | A | Press 50S4 right door close button                                                                                                      |  | OK |   | Sqiniseko Xulu - 493646   | Train |
| 10117 | R | The mirror is properly closed                                                                                                           |  | OK |   | Sqiniseko Xulu - 493646   | Train |

|       |   |                                                                                      |  |    |   |                            |       |
|-------|---|--------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2LeftMirror = 0.0                       |  | OK | 0 | Sqiniseko Xulu -<br>493646 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 0.0                      |  | OK | 0 | Sqiniseko Xulu -<br>493646 | Train |
| 10120 | A | Press the DOOR AUTH left button 50S5                                                 |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10121 | A | Force [TT] (MPU1)lo_sgl_tc2leftmirror =<br>1.0                                       |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10122 | R | Left mirror is open                                                                  |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10123 | A | Force [TT] (MPU1)lo_sgl_tc2leftmirror =<br>0.0                                       |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10124 | R | Left mirror closes                                                                   |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10125 | A | Press the DOOR AUTH right button 50S6                                                |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10126 | A | Force [TT] (MPU1)lo_sgl_tc2rightmirror<br>= 1.0                                      |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10127 | R | Right mirror opens                                                                   |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10128 | A | Force [TT] (MPU1)lo_sgl_tc2rightmirror<br>= 0.0                                      |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10129 | R | Right mirror closes                                                                  |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10130 | A | Release [TT] (MPU1)lo_sgl_tc2leftmirror                                              |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10131 | A | Release [TT]<br>(MPU1)lo_sgl_tc2rightmirror                                          |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10132 | A | Press the button 50S3 and 50S4 to reset<br>door authorization                        |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10133 | A | Isolate the valve H1.5/1 and H1.5/2                                                  |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10134 | A | Check that the left and right mirrors can<br>be folded manually                      |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10135 | A | Normalise the valve H1.5/1 and H1.5/2                                                |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10136 | A | Login on the DDU screen using the<br>driver's code 70787878                          |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10137 | A | Go to Command Screen                                                                 |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10138 | A | Authorise OPEN DOOR LEFT and RIGHT<br>using the button 50S5 and 50S6<br>respectively |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |

|       |   |                                                                          |                                                                                   |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10139 | A | On the DDU Command screen, open the left mirror using the virtual button |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10140 | R | Left mirror opens                                                        |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10141 | A | Press virtual button to open right mirror                                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10142 | R | Right mirror opens                                                       |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10143 | A | Press the button 50S2 and 50S4 to close the left and right doors         |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10144 | R | Both mirrors close                                                       |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10145 | I | End of test                                                              |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 25 – Train Ground Communication

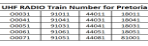
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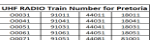
### 25.2 Instructions list

## 25.2.1 063\_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            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10002 | I    | GSMR - Functional Test TC1                                                                                                   |      | OK            |                      | Nokuzola Mdluli - 491469 | 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            | 89260420160520003692 | Nokuzola Mdluli - 491469 | Train   |
| 10004 | A    | Insert the SIM card into the GSMR Radio                                                                                      |      | OK            |                      | Nokuzola Mdluli - 491469 | 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            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10006 | A    | On the GSMR HMI, verify radio is not faulty                                                                                  |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10007 | A    | Active cab in TC1                                                                                                            |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10008 | I    | DDU-HMI Connection                                                                                                           |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10009 | A    | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                           |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10010 | R    | The time is the same (allowable difference of <10s)                                                                          |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10011 | I    | PACIS-HMI Connection                                                                                                         |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10012 | A    | Lift the GSMR handset                                                                                                        |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10013 | A    | Press the PA button on the GSMR HMI                                                                                          |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10014 | R    | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10015 | R    | The PA indication alarm sounds in all cars                                                                                   |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |
| 10016 | A    | Press the PTT on the handset and speak into the handset microphone                                                           |      | OK            |                      | Nokuzola Mdluli - 491469 | Train   |

|       |   |                                                                                                                                                |                                                                                   |    |                      |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----------------------|--------------------------|-------|
| 10017 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10018 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10019 | I | UHF Radio Test TC1                                                                                                                             |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10020 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10021 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | 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 |                      | Nokuzola Mdluli - 491469 | Train |
| 10023 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10024 | I | GSMR - Functional Test TC2                                                                                                                     |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10025 | A | Active Cab in TC2                                                                                                                              |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | 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 | 89260420160520003693 | Nokuzola Mdluli - 491469 | Train |
| 10027 | A | Insert the SIM card into the GSMR Radio                                                                                                        |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | 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 |                      | Nokuzola Mdluli - 491469 | Train |
| 10029 | A | On the GSMR HMI, verify radio is not faulty                                                                                                    |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10030 | I | DDU-HMI Connection                                                                                                                             |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10031 | A | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                                             |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10032 | R | The time is the same (allowable difference of <10s)                                                                                            |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10033 | I | PACIS-HMI Connection                                                                                                                           |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |
| 10034 | A | Lift the GSMR handset                                                                                                                          |                                                                                   | OK |                      | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                                                                |                                                                                   |    |  |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|--------------------------|-------|
| 10035 | A | Press the PA button on the GSMR HMI                                                                                                            |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10036 | R | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                                  |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10037 | R | The PA indication alarm sounds in all cars                                                                                                     |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10038 | A | Press the PTT on the handset and speak into the handset microphone                                                                             |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10039 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10040 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10041 | I | UHF Radio Test TC2                                                                                                                             |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10042 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10043 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10045 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |

## 25.2.2 064\_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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10002 | I    | Software upload                                                                                                                                                                                                                                                              |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10003 | I    | Use the below procedure to install the software on the Netbox(M1)                                                                                                                                                                                                            |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | 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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10005 | I    | Netbox configuration check                                                                                                                                                                                                                                                   |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10006 | A    | Perform the attached procedure to configure the Netbox (M1)                                                                                                                                                                                                                  |  | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10007 | R    | The Netbox is configured correctly                                                                                                                                                                                                                                           |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10008 | R    | The time and date on the DDU is correct - if not restart the train and verify again                                                                                                                                                                                          |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |

## Section 26 – Traction Converter

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### 26.2 Instructions list

## 26.2.1 033\_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            |              | Amanda Ntuli - 526239 | Train   |
| 10002 | I    | Initial Conditions                                                                                |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10003 | I    | Train is prepared with High voltage                                                               |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10004 | I    | Master controller is in OFF position                                                              |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10005 | I    | All traction units are in black colour on the DDU maintenance screen                              |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10006 | I    | Start of Test                                                                                     |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10007 | A    | Put the driving selector switch in FORWARD position                                               |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10008 | R    | Check on the DDU that all traction units are in FWD position                                      |  | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10009 | A    | Put the driving selector switch in REVERSE position                                               |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10010 | R    | Check on the DDU that all traction units are in REV position                                      |  | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10011 | A    | Put the driving selector switch in NEUTRAL position                                               |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10012 | I    | Traction Fault and reset                                                                          |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10013 | A    | Open HSCB using button 22S12                                                                      |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10014 | A    | Open the circuit breaker 33Q3 in M4 car                                                           |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10015 | R    | Traction unit of M4 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10016 | A    | Close the circuit breaker 33Q3                                                                    |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10017 | A    | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10018 | R    | Traction unit for M4 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK            |              | Amanda Ntuli - 526239 | Train   |

|       |   |                                                                                                   |                                                                                     |    |  |                       |       |
|-------|---|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-----------------------|-------|
| 10019 | A | Open the circuit breaker 33Q3 in M1 car                                                           |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10020 | R | Traction unit of M1 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Amanda Ntuli - 526239 | Train |
| 10021 | A | Close circuit breaker 33Q3 in M1 car                                                              |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10022 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10023 | R | Traction unit for M1 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10024 | A | Open the circuit breaker 33Q3 in M2 car                                                           |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10025 | R | Traction unit of M2 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Amanda Ntuli - 526239 | Train |
| 10026 | A | Close the circuit breaker 33Q3 in M2 car                                                          |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10027 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10028 | R | Traction unit for M2 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10029 | A | Open the circuit breaker 33Q3 in M3 car                                                           |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10030 | R | Traction unit of M3 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10031 | A | Close the circuit breaker 33Q3 in M3 car                                                          |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10032 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10033 | R | Traction unit for M3 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10034 | A | Close HSCBs using button 22S11                                                                    |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |
| 10035 | I | End of Test                                                                                       |                                                                                     | OK |  | Amanda Ntuli - 526239 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
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## Section 27 – CCTV Video Information

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### 27.2 Instructions list

## 27.2.1 055\_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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10002 | I    | Front camera footage TC1                                          |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10003 | A    | Active Cab on TC1 and Login as Driver: 70787878                   |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10004 | A    | Press and hold the FRONT EVENT BUTTON 66S1 on TC1                 |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10005 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 1.0 |                                                                                     | OK            | 1            | Nokuzola Mdluli - 491469 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 1.0 |                                                                                     | OK            | 1            | Nokuzola Mdluli - 491469 | Train   |
| 10007 | R    | The FRONT EVENT button lamp 66S1 is ON                            |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10008 | A    | Release the button 66S1                                           |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |                                                                                     | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |                                                                                     | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10011 | R    | The FRONT EVENT button lamp 66S1 is OFF                           |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10012 | A    | On the DDU screen, check if the Camera is correctly adjusted      |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10013 | A    | The picture on the DDU should be as the picture attached.         |  | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10014 | I    | Reverse direction front camera functional test TC1                |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10015 | A    | Put the direction selector switch in REVERSE position             |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10016 | R    | CCTV footage of TC2 front camera appears on the DDU               |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |

|       |   |                                                                |                                                                                     |    |   |                          |       |
|-------|---|----------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10017 | A | Put the direction selector switch in NEUTRAL position          |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10018 | R | CCTV footage of TC2 front camera does not appear on the DDU    |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10019 | A | Remove active cab on TC1                                       |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10020 | I | Front camera footage TC2                                       |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10021 | A | Active cab on TC2 and Login as Driver: 70787878                |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10022 | A | Press and hold the FRONT EVENT BUTTON 66S1 on TC2              |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR1 = 1.0 |                                                                                     | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc2CctvEventPbR2 = 1.0 |                                                                                     | OK | 1 | Nokuzola Mdluli - 491469 | Train |
| 10025 | R | The FRONT EVENT button lamp 66S1 is ON                         |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10026 | A | Release the button 66S1                                        |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10027 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |                                                                                     | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10028 | R | Read Defined Variable [TT] (MPU1)Li_CTV_Tc1CctvEventPbR2 = 0.0 |                                                                                     | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10029 | R | The FRONT EVENT button lamp 66S1 is OFF                        |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10030 | A | On the DDU screen, check if the Camera is correctly adjusted   |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10031 | A | The picture on the DDU should be as the picture attached.      |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10032 | I | Reverse direction front camera functional test TC2             |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10033 | A | Put the direction selector switch in REVERSE position          |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10034 | R | CCTV footage of TC1 front camera appears on the DDU            |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10035 | A | Put the direction selector switch in NEUTRAL position          |                                                                                     | OK |   | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                                                                                                                                                                  |                                                                                   |    |  |                          |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|--------------------------|-------|
| 10036 | R | CCTV footage of TC1 front camera does not appear on the DDU                                                                                                                                                                                      |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10037 | I | NVR Recording                                                                                                                                                                                                                                    |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10039 | R | The TC1 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10040 | R | The TC2 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10041 | A | Using the procedure attached, confirm that both NVRs are recording video data                                                                                                                                                                    |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10042 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR1                                                                                                                                                   |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10043 | R | save the screenshot as TSXX_NVR1                                                                                                                                                                                                                 |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10044 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR2                                                                                                                                                   |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10045 | R | Save the screenshot as TSXX_NVR2                                                                                                                                                                                                                 |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10047 | I | End of Test                                                                                                                                                                                                                                      |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 28 – PACIS

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### 28.2 Instructions list

### 28.2.1 054\_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            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | Software Upload                                                                                                                                                                         |                                                                                     | OK            |              | Amanda Ntuli - 526239      | Train   |
| 10003 | A    |                                                                                                                                                                                         |    | OK            |              | Sqiniseko Xulu - 493646    | Train   |
| 10004 | A    |                                                                                                                                                                                         |    | OK            |              | Sqiniseko Xulu - 493646    | Train   |
| 10005 | A    |                                                                                                                                                                                         |    | OK            |              | Sqiniseko Xulu - 493646    | Train   |
| 10006 | R    | Verify on the DDU, referring to the baseline spreadsheet, that all Pacis devices are updated with the latest software versions                                                          |                                                                                     | OK            |              | Sqiniseko Xulu - 493646    | Train   |
| 10007 | I    | Camera Orientation                                                                                                                                                                      |                                                                                     | OK            |              | Sqiniseko Xulu - 493646    | 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            |              | Amanda Ntuli - 526239      | 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            |              | Amanda Ntuli - 526239      | Train   |
| 10010 | A    | Please note any cameras showing green strips or unclear images should be updated settings using the attached procedure                                                                  |  | OK            |              | Amanda Ntuli - 526239      | Train   |
| 10011 | R    | The Saloon cameras on TC1 have been adjusted according to image above.                                                                                                                  |                                                                                     | OK            |              | Amanda Ntuli - 526239      | Train   |
| 10012 | R    | The Saloon cameras on M4 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Amanda Ntuli - 526239      | Train   |
| 10013 | R    | The Saloon cameras on M1 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Amanda Ntuli - 526239      | Train   |
| 10014 | R    | The Saloon cameras on M2 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Amanda Ntuli - 526239      | Train   |

|       |   |                                                                                         |  |    |   |                         |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10015 | R | The Saloon cameras on M3 have been adjusted according to image above.                   |  | OK |   | Amanda Ntuli - 526239   | Train |
| 10016 | R | The Saloon cameras on TC2 have been adjusted according to image above.                  |  | OK |   | Amanda Ntuli - 526239   | Train |
| 10017 | I | Mission Number Display                                                                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10018 | A | Active Cab in TC1                                                                       |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10019 | A | Login as a driver, ID: 70787878                                                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10020 | A | Enter the mission 8100                                                                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10021 | R | Check that the TC1 and TC2 front external displays are showing the mission number 8100. |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10022 | I | Public Announcements TC1                                                                |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                           |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                           |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10025 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10026 | R | Green lamp 54H2 is ON                                                                   |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10027 | R | A beep sound can be heard in all saloon speakers                                        |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10028 | R | On Driver's screen (Home Page), PA activation message is displayed                      |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10029 | A | Press the button 54S4 and hold it while talking via the microphone                      |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10030 | I | It is necessary to go to each and every speaker to verify sound is coming out           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10031 | R | Announcement can be heard in saloon speakers of TC1                                     |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10032 | R | Announcement can be heard in saloon speakers of M4                                      |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10033 | R | Announcement can be heard in saloon speakers of M1                                      |  | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                                                                                                |                                                                                   |    |   |                         |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|-------------------------|-------|
| 10034 | R | Announcement can be heard in saloon speakers of M2                                                                                                             |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10035 | R | Announcement can be heard in saloon speakers of M3                                                                                                             |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10036 | R | Announcement can be heard in saloon speakers of TC2                                                                                                            |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10037 | A | Release the button 54S4                                                                                                                                        |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10038 | A | Talk on the microphone                                                                                                                                         |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10039 | R | No sound can be heard in all cars                                                                                                                              |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10040 | A | Pulse the switch 54S1 to the right to deactivate PA announcement                                                                                               |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10041 | R | Green lamp 54H2 is OFF                                                                                                                                         |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | 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 |   | Sqiniseko Xulu - 493646 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 1.0                                                                                                     |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10044 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 1.0                                                                                                     |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10045 | R | Green lamp 54H2 is ON                                                                                                                                          |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10046 | R | PA announcement is activated                                                                                                                                   |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10047 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                             |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10048 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                                                                                                     |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10049 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                                                                                                     |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10050 | R | Green lamp 54H2 is OFF                                                                                                                                         |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10051 | I | PA announcement is de-activated                                                                                                                                |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10052 | A | Press the button 54S4 and hold it while talking on the microphone                                                                                              |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10053 | R | Sound cannot be heard in all speakers                                                                                                                          |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                         |  |    |   |                         |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10054 | A | Release the button 54S4                                                                 |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10055 | A | Remove active cab on TC1                                                                |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10056 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10057 | R | Green lamp 54H2 is OFF                                                                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10058 | R | No PA announcement activation showing on the Driver's screen                            |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10059 | I | Cab to Cab Communication TC1                                                            |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10060 | I | It is not necessary to have an active cab in order to initiate cab to cab communication |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10061 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                        |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10062 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                        |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10063 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10064 | R | Green lamp 54H1 is blinking                                                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10065 | R | A beep can be heard in TC2 cab                                                          |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10066 | R | Green lamp 54H1 is blinking in TC2 cab                                                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10067 | R | Cab to Cab communication is Active on DDU driver's screen                               |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10068 | A | Accept Cab to cab communication request in TC2 by pulsing switch 54S1 to the left       |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10069 | R | Green lamp 54H1 is ON (steady) on TC2                                                   |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10070 | A | Press and hold button 54S4 to initiate communication in TC1 and talk on the microphone  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10071 | R | Sound can be heard on TC2 cab speakers                                                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10072 | A | Press and hold button 54S4 in TC2 and talk on the microphone                            |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10073 | R | Sound can be heard on TC1 cab speakers                                                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                                                                                                |                                                                                   |    |   |                         |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|-------------------------|-------|
| 10074 | A | Pulse the switch 54S1 to the left on TC1 to de-activate cab to cab communication                                                                               |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10075 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | 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 |   | Sqiniseko Xulu - 493646 | Train |
| 10077 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR1 = 1.0                                                                                               |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10078 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 1.0                                                                                               |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10079 | R | Cab-Cab is activated                                                                                                                                           |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10080 | A | On the driver's screen select the "Public Address" virtual button to end communication                                                                         |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10081 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10082 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10083 | R | Cab-Cab is de-activated                                                                                                                                        |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10084 | I | Cab to Cab Communication TC2                                                                                                                                   |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10085 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                                                                                               |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10086 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10087 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                                                                                         |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10088 | R | Green lamp 54H1 is blinking                                                                                                                                    |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10089 | R | A beep can be heard in TC1 cab                                                                                                                                 |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10090 | R | Green lamp 54H1 is blinking in TC1 cab                                                                                                                         |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                                                                                                |                                                                                     |    |   |                         |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-------------------------|-------|
| 10091 | R | Cab to Cab communication is Active on DDU driver's screen                                                                                                      |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10092 | A | Accept Cab to cab communication request in TC1 by pulsing switch 54S1 to the left                                                                              |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10093 | R | Green lamp 54H1 is ON (steady) on TC1                                                                                                                          |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10094 | A | Press and hold button 54S4 to initiate communication in TC2 and talk on the microphone                                                                         |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10095 | R | Sound can be heard on TC1 cab speakers                                                                                                                         |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10096 | A | Press and hold button 54S4 in TC1 and talk on the microphone                                                                                                   |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10097 | R | Sound can be heard on TC2 cab speakers                                                                                                                         |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10098 | A | Pulse the switch 54S1 to the left on TC2 to de-activate cab to cab communication                                                                               |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10099 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | 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 |   | Sqiniseko Xulu - 493646 | Train |
| 10101 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 1.0                                                                                               |                                                                                     | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10102 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 1.0                                                                                               |                                                                                     | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10103 | R | Cab-Cab is activated                                                                                                                                           |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10104 | A | On the driver's screen select the "Public Address" virtual button to end communication                                                                         |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10105 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                                                                                               |                                                                                     | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10106 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                                                                                               |                                                                                     | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10107 | R | Cab-Cab is de-activated                                                                                                                                        |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                               |                                                                                     |    |   |                         |       |
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| 10108 | I | Ventilation Rack TC1                                                          |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10109 | A | Follow the instruction below o how to test the ventilation rack               |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10110 | R | All three fans of the ventilation rack are working                            |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10111 | I | PEA Functional Test                                                           |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10112 | I | All PEAs are normalized on Train                                              |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10113 | I | All doors should be closed                                                    |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10114 | I | Lamp 44H1 is OFF                                                              |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10115 | I | PEI auto test passed in all cars, only one green led can be seen in all PEIs  |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10116 | A | Active cab on TC1 and login as driver: 70787878                               |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10117 | I | All Cameras should be working and properly adjusted                           |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10118 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC1                                |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10119 | A | Pull the PEA                                                                  |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10120 | R | Lamp 44H1 is ON                                                               |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10121 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealop = 1.0                       |                                                                                     | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10122 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                    |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10123 | R | A Beed can be heard in TC1 cab                                                |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10124 | R | Button lamp 54S3 is BLINKING                                                  |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10125 | R | An emergency alarm announcement can be heard in all saloon speakers           |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10126 | R | Displays INT1 and INT2 indicate "Passenger Alarm" in all saloon cars          |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10127 | R | Lateral displays LAT1 and LAT2 indicate "Passenger Alarm" on the affected car |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | 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 |   | Sqiniseko Xulu - 493646 | Train |
| 10129 | A | Press the button 54S3 to acknowledge PEA communication request                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10130 | A | Press and hold button 54S4 on TC1 and talk on the microphone                      |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10131 | R | Message stops broadcasting in all saloon speakers                                 |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10132 | R | The person in the cabin can be heard from the PEI speaker                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10133 | A | Respond by talking back via the PEI                                               |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10134 | R | Communication is established between PEI and Driver cab                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10135 | A | Press the button 54S3 to end PEA communication                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10136 | A | Reset PEA using switch 44S6                                                       |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10137 | R | PEA is reset and a click sound can be heard while PEA returns to its normal state |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10138 | A | Open and close doors using buttons on driver desk                                 |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10139 | R | All doors are closed and in blue colour on DDU                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10140 | R | Lamp 44H1 is OFF                                                                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10141 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc1pealoop = 0.0                          |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10142 | R | No CCTV footage showing on Driver's screen                                        |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10143 | R | Button lamp 54S3 is OFF                                                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10144 | R | No message on Pacis displays                                                      |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10145 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC1                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10146 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                   |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |

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| 10147 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                                                                                              |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10148 | A | Pull the PEA                                                                                                                                                    |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10149 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                                                                                                      |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10150 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen                                                                                         |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | 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 |   | Sqiniseko Xulu - 493646 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 1.0                                                                                              |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 1.0                                                                                              |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10154 | A | Press and hold button 54S4 on TC1 and talk on the microphone                                                                                                    |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10155 | R | The person in the cabin can be heard from the PEI speaker                                                                                                       |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10156 | A | Respond by talking back via the PEI                                                                                                                             |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10157 | R | Communication is stabile between PEI and Driver cab                                                                                                             |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10158 | A | On the driver's screen select the "Passenger Alarm" virtual button to end communication                                                                         |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                                                                                              |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                                                                                              |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10161 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC1                                                                                                                  |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10162 | A | Pull the PEA                                                                                                                                                    |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |

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| 10163 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10164 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10165 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10166 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10167 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10168 | A | Respond by talking back via the PEI                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10169 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10170 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10171 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC1                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10172 | A | Pull the PEA                                                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10173 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10174 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10175 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10176 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10177 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10178 | A | Respond by talking back via the PEI                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10179 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10180 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10181 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC1                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |

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|-------|---|-------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10182 | A | Pull the PEA                                                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10183 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10184 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10185 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10186 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10187 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10188 | A | Respond by talking back via the PEI                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10189 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10190 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10191 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC1                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10192 | A | Pull the PEA                                                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10193 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10194 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10196 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10197 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10198 | A | Respond by talking back via the PEI                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10199 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10200 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |

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|-------|---|-------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10201 | I | Call for Aid (CFA 54S5) on TC1                                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10202 | A | Press the SOS button 54S5                                               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10203 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10204 | R | No sound can be heard in all saloon speakers                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10205 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars       |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10206 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC1           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10207 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10208 | A | Press the button 54S3 to acknowledge SOS communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10209 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10210 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10211 | A | Respond by talking back via the PEI near 54S5                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10212 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10213 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10214 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M4                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10215 | A | Pull the PEA                                                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10216 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10217 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen  |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10218 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10219 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |

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|-------|---|------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10220 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10221 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10222 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10223 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10224 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M4                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10225 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10226 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10227 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10228 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10229 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10230 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10231 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10232 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10233 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10234 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M4                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10235 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10236 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10237 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10238 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |

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|-------|---|------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10239 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10240 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10241 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10242 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10243 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10244 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M4                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10245 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10246 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10247 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10248 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10249 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10250 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10251 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10252 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10253 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10254 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M4                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10255 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10256 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10257 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10258 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10259 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10260 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10261 | A | Respond by talking back via the PEI                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10262 | R | Communication is established between PEI and Driver cab                |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10263 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10264 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M4                          |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10265 | A | Pull the PEA                                                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10266 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10267 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10268 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10269 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10270 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10271 | A | Respond by talking back via the PEI                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10272 | R | Communication is established between PEI and Driver cab                |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10273 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10274 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 1.0          |  | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10275 | A | Reset PEA using switch 44S6                                            |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10276 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M4StateResetPea = 0.0          |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |

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| 10277 | R | All M4 PEAs are reset                                                  |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10278 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M1                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10279 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10280 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10281 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10282 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10283 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10284 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10285 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10286 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10287 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10288 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M1                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10289 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10290 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10291 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10292 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10293 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10294 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10295 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10296 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10297 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10298 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M1                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10299 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10300 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10301 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10302 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10303 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10304 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10305 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10306 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10307 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10308 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M1                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10309 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10310 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10311 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10312 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10313 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10314 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10315 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10316 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10317 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10318 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M1                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10319 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10320 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10321 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10322 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10323 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10324 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10325 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10326 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10327 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10328 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M1                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10329 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10330 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10331 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10332 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10333 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10334 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10335 | A | Respond by talking back via the PEI                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10336 | R | Communication is established between PEI and Driver cab                |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10337 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10338 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M1StateResetPea = 1.0          |  | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10339 | A | Reset PEA using switch 44S6                                            |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10340 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M1StateResetPea = 0.0          |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10341 | R | All M1 PEAs are reset                                                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10342 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M2                          |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10343 | A | Pull the PEA                                                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10344 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10345 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10346 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10347 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10348 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10349 | A | Respond by talking back via the PEI                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10350 | R | Communication is established between PEI and Driver cab                |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10351 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10352 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M2                          |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10353 | A | Pull the PEA                                                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10354 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10355 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10356 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10357 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10358 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10359 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10360 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10361 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10362 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M2                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10363 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10364 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10365 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10366 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10367 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10368 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10369 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10370 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10371 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10372 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M2                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10373 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10374 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10375 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10376 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10377 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10378 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10379 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10380 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10381 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10382 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M2                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10383 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10384 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10385 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10386 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10387 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10388 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10389 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10390 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10391 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10392 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M2                          |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10393 | A | Pull the PEA                                                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10394 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10395 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10396 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10397 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10398 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10399 | A | Respond by talking back via the PEI                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10400 | R | Communication is established between PEI and Driver cab                |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10401 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10402 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 1.0          |  | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10403 | A | Reset PEA using switch 44S6                                            |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10404 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 0.0          |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10405 | R | All M2 PEAs are reset                                                  |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10406 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M3                          |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10407 | A | Pull the PEA                                                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10408 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10409 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10410 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10411 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10412 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10413 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10414 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10415 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10416 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M3                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10417 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10418 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10419 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10420 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10421 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10422 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10423 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10424 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10425 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10426 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M3                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10427 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10428 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10429 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |  |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10430 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10431 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10432 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10433 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10434 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10435 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10436 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M3                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10437 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10438 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10439 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10441 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10442 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10443 | A | Respond by talking back via the PEI                                    |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10444 | R | Communication is established between PEI and Driver cab                |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10445 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10446 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M3                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10447 | A | Pull the PEA                                                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10448 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                        |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10449 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10450 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10451 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10452 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10453 | A | Respond by talking back via the PEI                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10454 | R | Communication is established between PEI and Driver cab                |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10455 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10456 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M3                          |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10457 | A | Pull the PEA                                                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10458 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10459 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10460 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10461 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10462 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10463 | A | Respond by talking back via the PEI                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10464 | R | Communication is established between PEI and Driver cab                |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10465 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10466 | R | Read Defined Variable [TT] (MPU1) Li_UBK_M3StateResetPea = 1.0         |  | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10467 | A | Reset PEA using switch 44S6                                            |  | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                            |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10468 | R | Read Defined Variable [TT]<br>(MPU1) Li_UBK_M3StateResetPea = 0.0          |  | OK | 0 | Sqiniseko Xulu -<br>493646 | Train |
| 10469 | R | All M3 PEAs are reset                                                      |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10470 | I | Passenger Emergency Alarm 1 (PEA<br>44S11) on TC2                          |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10471 | A | Pull the PEA                                                               |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10472 | R | "Wait/Talk" lamp is BLINKING ORANGE<br>on PEI                              |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10473 | R | A CCTV footage of TC2 camera 1 and 2<br>can be seen on the Driver's screen |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10474 | A | Press the button 54S3 to acknowledge<br>PEA communication request          |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10475 | A | Press and hold button 54S4 on TC1 and<br>talk on the microphone            |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10476 | R | The person in the cabin can be heard from<br>the PEI speaker               |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10477 | A | Respond by talking back via the PEI                                        |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10478 | R | Communication is established between<br>PEI and Driver cab                 |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10479 | A | Press the button 54S3 to end PEA<br>communication                          |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10480 | I | Passenger Emergency Alarm 2 (PEA<br>44S12) on TC2                          |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10481 | A | Pull the PEA                                                               |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10482 | R | "Wait/Talk" lamp is BLINKING ORANGE<br>on PEI                              |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10483 | R | A CCTV footage of TC2 camera 1 and 2<br>can be seen on the Driver's screen |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10484 | A | Press the button 54S3 to acknowledge<br>PEA communication request          |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10485 | A | Press and hold button 54S4 on TC1 and<br>talk on the microphone            |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10486 | R | The person in the cabin can be heard from<br>the PEI speaker               |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |

|       |   |                                                                         |  |    |  |                         |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10487 | A | Respond by talking back via the PEI                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10488 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10489 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10490 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC2                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10491 | A | Pull the PEA                                                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10492 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10493 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10494 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10495 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10496 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10497 | A | Respond by talking back via the PEI                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10498 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10499 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10500 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC2                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10501 | A | Pull the PEA                                                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10502 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10503 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10504 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10505 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                         |  |    |  |                         |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10506 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10507 | A | Respond by talking back via the PEI                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10508 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10509 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10510 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC2                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10511 | A | Pull the PEA                                                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10512 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10513 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10514 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10515 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10516 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10517 | A | Respond by talking back via the PEI                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10518 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10519 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10520 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC2                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10521 | A | Pull the PEA                                                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10522 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10523 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10524 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                         |  |    |  |                         |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 10525 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10526 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10527 | A | Respond by talking back via the PEI                                     |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10528 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10529 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10530 | I | Call for Aid (CFA 54S5) on TC2                                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10531 | A | Press the SOS button 54S5                                               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10532 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10533 | R | No sound can be heard in all saloon speakers                            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10534 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars       |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10535 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC2           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10536 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10537 | A | Press the button 54S3 to acknowledge SOS communication request          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10538 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10539 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10540 | A | Respond by talking back via the PEI near 54S5                           |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10541 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10542 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10543 | A | Open and close doors left and right doors                               |  | OK |  | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                                                                             |                                                                                     |    |   |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-------------------------|-------|
| 10544 | R | All doors are closed and in blue colour on DDU                                                                                              |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10545 | I | PEAs functional Test from TC2 cab                                                                                                           |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10546 | I | This is a quick test to verify that all PEAs work and can be reset from TC2                                                                 |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10547 | A | Insert Driver's Key and turn to ON position                                                                                                 |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10548 | A | Login as Driver using the code 70787878                                                                                                     |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10549 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2alldoorsclosedr1 = 0.0                                                                           |                                                                                     | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10550 | R |                                                                                                                                             |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10551 | A | Pull all the PEAs on Train                                                                                                                  |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10552 | R |                                                                                                                                             |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10553 | R | Read Defined Variable [TT] (MPU1)li_dor_tc2alldoorsclosedr1 = 1.0                                                                           |                                                                                     | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10554 | R |                                                                                                                                             |  | OK |   | Sqiniseko Xulu - 493646 | 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 |   | Sqiniseko Xulu - 493646 | Train |
| 10556 | R | Lamp 44H1 is ON                                                                                                                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10557 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc2pealoop = 1.0                                                                                    |                                                                                     | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10558 | A | Press and hold the button 54S4 while talking on the microphone                                                                              |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10559 | R | The person in the cabin can be heard from the PEI speaker                                                                                   |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10560 | I | It is not necessary to perform step below for all PEAs, one PEA is sufficient                                                               |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10561 | A | Respond by talking back via the PEI                                                                                                         |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10562 | R | Communication is established between PEI and Driver cab                                                                                     |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10563 | A | Reset all PEAs at using switch 44S6                                                                                                         |                                                                                     | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                          |                                                                                     |    |   |                         |       |
|-------|---|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-------------------------|-------|
| 10564 | R | All PEAs are reset, and a click sound can be heard while PEA returns to its normal state |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10565 | A | Open and close doors left and right doors                                                |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10566 | R | All doors are closed and in blue colour on DDU                                           |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10567 | R | Lamp 44H1 is OFF                                                                         |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10568 | R | No message on Pacis displays                                                             |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10569 | R | Read Defined Variable [TT] (MPU1)li_ubk_tc2pealoo = 0.0                                  |    | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10570 | R | No CCTV footage showing on Driver's screen                                               |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10571 | A | On the Event screen, check that there are no IOS related to doors or PEAs recorded       |    | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10572 | R | After test is completed, the DDU PEA screen should be as shown                           |   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10573 | A | Repeat this test for 4 times                                                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10574 | R | 1st attempt passed                                                                       |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10575 | R | 2nd attempt passed                                                                       |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10576 | R | 3rd attempt passed                                                                       |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10577 | R | 4th attempt passed                                                                       |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10578 | I | Public Announcements TC2                                                                 |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10579 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0                               |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10580 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                               |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10581 | A | Pulse the switch 54S1 to the right to activate PA announcement                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10582 | R | Green lamp 54H2 is ON                                                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10583 | R | A beep sound can be heard in all saloon speakers                                         |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10584 | R | On Driver's screen (Home Page), PA activation message is displayed                       |  | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                                                                                             |                                                                                   |    |   |                         |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|-------------------------|-------|
| 10585 | A | Press the button 54S4 and hold it while talking via the microphone                                                                                          |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10586 | R | Announcement can be heard in saloon speakers of all cars                                                                                                    |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10587 | A | Release the button 54S4                                                                                                                                     |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10588 | A | Talk on the microphone                                                                                                                                      |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10589 | R | No sound can be heard in all cars                                                                                                                           |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10590 | A | Pulse the switch 54S1 to the right to de-activate PA announcement                                                                                           |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10591 | A | Green lamp 54H2 is OFF                                                                                                                                      |  | OK |   | Sqiniseko Xulu - 493646 | 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 |   | Sqiniseko Xulu - 493646 | Train |
| 10593 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 1.0                                                                                                  |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10594 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 1.0                                                                                                  |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10595 | R | Green lamp 54H2 is ON                                                                                                                                       |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10596 | R | PA announcement is activated                                                                                                                                |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10597 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                          |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10598 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0                                                                                                  |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10599 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                                                                                                  |                                                                                   | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10600 | R | Green lamp 54H2 is OFF                                                                                                                                      |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10601 | I | PA announcement is de-activated                                                                                                                             |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10602 | A | Press the button 54S4 and hold it while talking on the microphone                                                                                           |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10603 | R | Sound cannot be heard in all speakers                                                                                                                       |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10604 | A | Release the button 54S4                                                                                                                                     |                                                                                   | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                                                                                  |                                                                                   |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10605 | A | Remove active cab on TC1                                                                                                                         |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10606 | A | Pulse the switch 54S1 to the right to activate PA announcement                                                                                   |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10607 | R | Green lamp 54H2 is OFF                                                                                                                           |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10608 | R | No PA announcement activation showing on the Driver's screen                                                                                     |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10609 | I | Ventilation Rack TC2                                                                                                                             |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10610 | A | Follow the instruction below o how to test the ventilation rack                                                                                  |  | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10611 | R | All three fans of the ventilation rack are working                                                                                               |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10612 | I | Pacis audio and displays test                                                                                                                    |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | 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 |  | Sqiniseko Xulu - 493646 | Train |
| 10614 | A | Launch the Pacis Test from the DDU                                                                                                               |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10615 | R | All saloon speakers and displays are working on train                                                                                            |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10616 | A | Stop the Pacis test                                                                                                                              |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10617 | I | End of Test                                                                                                                                      |                                                                                   | OK |  | Sqiniseko Xulu - 493646 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 29 – Dynamic Pre-Test

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### 29.2 Instructions list

### 29.2.1 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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10002 | I    | Train Normalisation                                                                                                                       |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10003 | A    | Whilst checking the LV cubicles in each Car, also check the dataplug ground cables if they are secured and tightened                      |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10004 | I    | TC1                                                                                                                                       |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10005 | R    | ALL LV1.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10006 | R    | ALL LV2.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10007 | R    | ALL LV7 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10008 | R    | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                                 |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10009 | R    | ALL underframe connectors are connected and tightly secured with screws                                                                   |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10010 | R    | ALL inter-car connectors are connected and tightly secured with screws                                                                    |      | OK            |              | Nokuzola Mdluli - 491469 | 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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10012 | R    | The values of the HVAC sensor grades are the same                                                                                         |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10013 | I    | M4                                                                                                                                        |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10014 | R    | ALL LV3 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10015 | R    | ALL LV6 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Nokuzola Mdluli - 491469 | Train   |

|       |   |                                                                                                                                         |  |    |  |                          |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10016 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10017 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10018 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10020 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10021 | I | M1                                                                                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10022 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10023 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10024 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10025 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10026 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10028 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10029 | I | M2                                                                                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10030 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10031 | R | ALL LV4 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10032 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                                                         |  |    |  |                          |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10033 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10034 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10036 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10037 | I | M3                                                                                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10038 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10039 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10040 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10041 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10042 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10044 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10045 | I | TC2                                                                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10046 | R | ALL LV1.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10047 | R | ALL LV2.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10048 | R | ALL LV7 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10049 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                                                           |  |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10050 | R | ALL underframe connectors are connected and tightly secured with screws                                                                   |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10051 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                    |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10053 | R | The values of the HVAC sensor grades are the same                                                                                         |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10054 | I | Brake Test                                                                                                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10055 | A | Prepare the train in high voltage with active cab on TC1                                                                                  |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10056 | A | On the DDU test screen, run the BRAKE TEST by following the instructions on the screen                                                    |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10057 | R | After the BRAKE TEST is complete, all cars have passed                                                                                    |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10058 | A | Shut down the train by putting the battery contactor 18S1 in OFF position                                                                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10059 | I | Reduced Power Test                                                                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10060 | A | Prepare the train in high voltage with active cab on TC1                                                                                  |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10061 | A | Set the Driving Mode Switch (30S1) to "DEPOT" position.                                                                                   |  | OK |  | Nokuzola Mdluli - 491469 | 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 |  | Nokuzola Mdluli - 491469 | Train |
| 10063 | A | Select a running direction (Forward or Reverse).                                                                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10064 | I | REMEMBER TO PRESS THE DEAD MAN BUTTON OCCASIONALLY                                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10065 | R | Check that all the conditions on the screen are satisfied (green box to the right of each condition)                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10066 | A | Select RPT for M4 car                                                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                                                  |  |    |          |                          |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|----------|--------------------------|-------|
| 10067 | R | RPT for M4 test successful                                                                                                       |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10068 | A | Close the HSCB                                                                                                                   |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10069 | A | Select RPT for M1car                                                                                                             |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10070 | R | RPT for M1 test successful                                                                                                       |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10071 | A | Close the HSCB                                                                                                                   |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10072 | A | Select RPT for M2 car                                                                                                            |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10073 | R | RPT for M2 test successful                                                                                                       |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10074 | A | Close the HSCB                                                                                                                   |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10075 | A | Select RPT for M3 car                                                                                                            |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10076 | R | RPT for M3 test successful                                                                                                       |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10077 | A | Close the HSCB                                                                                                                   |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10078 | I | Traction Test                                                                                                                    |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10079 | A | WARNING: Do not perform TRACTION TEST when the Reduced Power Test has failed.                                                    |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10080 | A | Prepare the train in high voltage with active cab on TC1                                                                         |  | OK |          | Nokuzola Mdluli - 491469 | 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 |          | Nokuzola Mdluli - 491469 | Train |
| 10082 | R | After the Traction Test is complete, there are no traction faults logged on the DDU Event screen                                 |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10083 | I | Load requirements                                                                                                                |  | OK |          | Nokuzola Mdluli - 491469 | Train |
| 10084 | R | Read Undefined Variable [TT] SBK_M1CarWeight                                                                                     |  | OK | 36735.68 | Nokuzola Mdluli - 491469 | Train |
| 10085 | R | Read Undefined Variable [TT] SBK_M2CarWeight                                                                                     |  | OK | 39043.63 | Nokuzola Mdluli - 491469 | Train |
| 10086 | R | Read Undefined Variable [TT] SBK_M3CarWeight                                                                                     |  | OK | 38858.31 | Nokuzola Mdluli - 491469 | Train |
| 10087 | R | Read Undefined Variable [TT] SBK_M4CarWeight                                                                                     |  | OK | 36099.03 | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                         |  |    |           |                             |       |
|-------|---|-------------------------------------------------------------------------|--|----|-----------|-----------------------------|-------|
| 10088 | R | Read Undefined Variable [TT]<br>SBK_Tc1CarWeight                        |  | OK | 34480.13  | Nokuzola Mdluli -<br>491469 | Train |
| 10089 | R | Read Undefined Variable [TT]<br>SBK_Tc2CarWeight                        |  | OK | 34766.27  | Nokuzola Mdluli -<br>491469 | Train |
| 10090 | A | Calculate the sum of all cars                                           |  | OK |           | Nokuzola Mdluli -<br>491469 | Train |
| 10091 | R | The sum of the weight for all cars<br>Result Max : $x \leq 223740$ (kg) |  | OK | 219983.05 | Nokuzola Mdluli -<br>491469 | Train |
| 10092 | I | End of Test                                                             |  | OK |           | Nokuzola Mdluli -<br>491469 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS242 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000007075<br>Version: A0 | Emission date<br>20/08/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## 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 Signaling           | 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            |
|----------|-------------------------|------------------------|
| 019_AIR  | Manometro               | Manometer              |
| 025_NET  | Cable Analyser DSX5000  | Cable analyser DSX5000 |
| 040_SBK  | Manometro               | Manometer              |
| 040_SUP  | Manometro               | Manometer              |
| 044_UBK  | Manometro               | Manometer              |
| 045_PBK  | Manometro               | Manometer              |
| 050_DOR  | NContrôleur de pression | Pressure Meter 1       |
| 072_SGL  | Manometro               | Manometer              |

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