

| PROJECT         | CUSTOMER | TRAIN     |
|-----------------|----------|-----------|
| Xtrapolis-PRASA | PRASA    | 224 – TFD |

RTR Train Functional Static Testing TS224 Report  
GIB0000006510



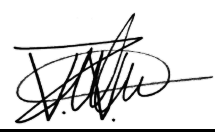
|           | CREATED       | VERIFIED       | APPROVED        | DISTRIBUTION                                                                                                                                                        |
|-----------|---------------|----------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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      | 27/05/2024    | 27/05/2024     | 27/05/2024      | 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  | 27/05/2024 | Creation              | Vusumuzi ZULU |

## Internal validations

|                 | Name            | Function            | Date       | Signature                                                                               |
|-----------------|-----------------|---------------------|------------|-----------------------------------------------------------------------------------------|
| <b>Creator</b>  | Vusumuzi ZULU   | EPU Manager         | 27/05/2024 | X    |
|                 |                 |                     |            | Vusumuzi ZULU<br>EPU Manager                                                            |
| <b>Verifier</b> | Sifiso LUKHELE  | Serial Test Manager | 27/05/2024 | X   |
|                 |                 |                     |            | Sifiso LUKHELE<br>Serial Test Manager                                                   |
| <b>Approver</b> | Kgomotso NKOANA | Test Expert         | 27/05/2024 | X  |
|                 |                 |                     |            | Kgomotso NKOANA<br>Test Expert                                                          |

## Execution Plan

|                   |            |
|-------------------|------------|
| <b>Start Date</b> | 24/05/2024 |
| <b>End Date</b>   | 27/05/2024 |

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## Section 1 – Purpose / Objectives

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## Section 2 – High Voltage Distribution

### 2.3 Instructions list

#### 2.3.1 010\_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            |              | Amanda Ntuli - 526239 | 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            |              | Amanda Ntuli - 526239 | Train   |
| 10003 | A    | Apply LOTO procedure on the High Voltage Catenary before commencing with the procedure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10004 | I    | High Voltage Line Continuity Check                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      | OK            |              | Amanda Ntuli - 526239 | Train   |
| 10005 | A    | Check continuity of the following cables using a long wire, do not short any point to ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      | OK            |              | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10007 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10009 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10011 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10012 | A | On M1 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire                                                         |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10013 | R | There is NO continuity.                                                                                                                                |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10015 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10016 | A | On M2 car, from Propulsion Box Connector 10XT12 point TR1 cable (#1UG-UK_2) to any Ground Wire                                                         |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10017 | R | There is NO continuity.                                                                                                                                |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                                        |  |    |  |                       |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-----------------------|-------|
| 10019 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10021 | R | There is continuity. Cables are visually connected, and bolts are torqued.                                                                             |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10022 | A | Put back all the removed covers and tighten                                                                                                            |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10023 | R | All covers are back and normalized                                                                                                                     |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10024 | I | End of Test                                                                                                                                            |  | OK |  | Amanda Ntuli - 526239 | Train |

## Section 3 – Energy Distribution 110V

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### 3.3 Instructions list

### 3.3.1 015\_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            |              | Amanda Ntuli - 526239    | Train   |
| 10002 | I    | Initial Conditions                                                                                                                                                                                                         |                                                                                     | OK            |              | Amanda Ntuli - 526239    | Train   |
| 10003 | I    | Train powered in normal mode with only battery power                                                                                                                                                                       |                                                                                     | OK            |              | Amanda Ntuli - 526239    | Train   |
| 10004 | A    | Activate Cab on TC1                                                                                                                                                                                                        |                                                                                     | OK            |              | Amanda Ntuli - 526239    | Train   |
| 10005 | A    | Close the battery contactor 18S1                                                                                                                                                                                           |                                                                                     | OK            |              | Amanda Ntuli - 526239    | Train   |
| 10006 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |                                                                                     | OK            |              | Amanda Ntuli - 526239    | Train   |
| 10007 | R    | After few minutes, the TCMS has successfully initialized on the DDU screen                                                                                                                                                 |                                                                                     | OK            |              | Amanda Ntuli - 526239    | Train   |
| 10008 | A    | Check on the DDU that all devices on TCMS network are in black colour i.e. successfully initialized                                                                                                                        |  | OK            |              | Amanda Ntuli - 526239    | Train   |
| 10009 | R    | The Battery Voltage on the Voltage line module is 110V                                                                                                                                                                     |                                                                                     | OK            |              | Amanda Ntuli - 526239    | Train   |
| 10010 | R    | On the Driver Screen, the battery voltage is the same as in the line module (110V)                                                                                                                                         |                                                                                     | OK            |              | Amanda Ntuli - 526239    | 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            |              | Walter Sigudla - 486333  | 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 |  | Amanda Ntuli - 526239 | Train |
| 10016 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10017 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10018 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10019 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10020 | R | The emergency Lighting is ON in M3 saloon, left and right side in low brightness               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10021 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness              |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10022 | A | Remove active cab on TC1                                                                       |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10023 | I | Train preparation on TC2 cab                                                                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10024 | A | Insert the Driver's Master key on TC2, turn it to ON position and close battery contactor 18S1 |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10025 | R | The emergency Lighting is ON in TC1 saloon, left and right side in low brightness              |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10026 | R | The emergency Lighting is ON in M4 saloon, left and right side in low brightness               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10027 | R | The emergency Lighting is ON in M1 saloon, left and right side in low brightness               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10028 | R | The emergency Lighting is ON in M2 saloon, left and right side in low brightness               |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10029 | R | The emergency Lighting is ON in M3 saloon, left and right side in low                          |  | OK |  | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                                                                                  |  |    |  |                       |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-----------------------|-------|
|       |   | brightness                                                                                                                                       |  |    |  |                       |       |
| 10030 | R | The emergency Lighting is ON in TC2 saloon, left and right side in low brightness                                                                |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10031 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10032 | R | Train is successfully shutdown                                                                                                                   |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10033 | I | Battery Low Watchdog                                                                                                                             |  | OK |  | Amanda Ntuli - 526239 | 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 |  | Amanda Ntuli - 526239 | Train |
| 10035 | A | On TC2, turn ON the cleaning lights switch 52S6                                                                                                  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10036 | R | Emergency lighting is ON in all cars                                                                                                             |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10037 | A | Remove the relay 15K1 from its base                                                                                                              |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10038 | R | Emergency lighting is OFF in all cars                                                                                                            |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10039 | A | Put back the relay 15K1 on its base                                                                                                              |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10040 | A | Walk to the TC2 CVS Agate compartment and confirm that the CVS Agate is not powered                                                              |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10041 | R | The CVS Agate is OFF                                                                                                                             |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10042 | A | Switch On the train on TC1 side                                                                                                                  |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10043 | A | Shutdown the train by opening the battery contactor 18S1                                                                                         |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10044 | A | Turn the switch 52S6 to switch ON the cleaning lights                                                                                            |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10045 | A | Remove the relay 15K1 from its base                                                                                                              |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10046 | R | The emergency lighting is OFF in all cars                                                                                                        |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10047 | A | Put back the relay on its base                                                                                                                   |  | OK |  | Amanda Ntuli - 526239 | Train |

|       |   |                                                                                     |                                                                                   |    |  |                       |       |
|-------|---|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|-----------------------|-------|
| 10048 | A | Walk to the TC1 CVS Agate compartment and confirm that the CVS Agate is not powered |                                                                                   | OK |  | Amanda Ntuli - 526239 | Train |
| 10049 | R | The CVS Agate is OFF                                                                |                                                                                   | OK |  | Amanda Ntuli - 526239 | Train |
| 10050 | I | Train Earthing Procedure                                                            |  | OK |  | Amanda Ntuli - 526239 | Train |
| 10051 | R | The train is successfully isolated and earthed.                                     |                                                                                   | OK |  | Amanda Ntuli - 526239 | Train |
| 10052 | A | Normalize the train                                                                 |                                                                                   | OK |  | Amanda Ntuli - 526239 | Train |
| 10053 | R | The train is normalized.                                                            |                                                                                   | OK |  | Amanda Ntuli - 526239 | Train |
| 10054 | R | Check the IOS status to see if both PANTOS are NOT isolated.                        |                                                                                   | OK |  | Amanda Ntuli - 526239 | Train |
| 10055 | I | End of Test                                                                         |                                                                                   | OK |  | Amanda Ntuli - 526239 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 4 – Energy Distribution 400V AC

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### 4.3 Instructions list

#### 4.3.1 014\_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            |              | Vuma Mlaba - 435642 | Train   |
| 10002 | I    | Initial Conditions                                                          |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10003 | I    | TCMS should be working on train                                             |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10004 | I    | No high voltage present on catenary                                         |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10005 | I    | Start of Test                                                               |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10006 | A    | Activate the Cab on TC2                                                     |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10007 | A    | Close the battery contactor 18S1                                            |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10008 | I    | Wait for the TCMS to successfully initialize, then do the steps below       |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 1.0 |      | OK            | 1            | Vuma Mlaba - 435642 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnection1 = 1.0      |      | OK            | 1            | Vuma Mlaba - 435642 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1 = 1.0 |      | OK            | 1            | Vuma Mlaba - 435642 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc2batteryconnection2 = 1.0      |      | OK            | 1            | Vuma Mlaba - 435642 | Train   |
| 10013 | A    | Trip the Circuit Breaker CC(ALS) on TC2 CVS AGATE compartment               |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr1___1 = 0.0 |      | OK            | 0            | Vuma Mlaba - 435642 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battcontactclosedr2___1 = 0.0 |      | OK            | 0            | Vuma Mlaba - 435642 | Train   |

|       |   |                                                                                   |  |    |   |                     |       |
|-------|---|-----------------------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10016 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR1___1<br>= 0.0        |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2___1<br>= 0.0        |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10018 | I | Wait for 30s timer in the next step prior to<br>resetting Circuit Breaker CC(ALS) |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10019 | A | Timer 30.0 S                                                                      |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10020 | A | Reset the Circuit Breaker CC(ALS) on TC2<br>CVS AGATE compartment                 |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10021 | A | Trip the Circuit Breaker CC(AL) on TC2 CVS<br>AGATE compartment                   |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1<br>= 1.0        |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1<br>= 1.0        |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10024 | I | Wait for 30s timer in the next step prior to<br>resetting Circuit Breaker CC(ALS) |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10025 | A | Timer 30.0 S                                                                      |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10026 | A | Reset the Circuit Breaker CC(AL) on TC2<br>CVS AGATE compartment                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10027 | A | Activate the Cab on TC1                                                           |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10028 | A | Close the battery contactor 18S1                                                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10029 | I | Wait for the TCMS to successfully initialize,<br>then do the steps below          |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1<br>= 1.0    |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1batteryconnectionr1 =<br>1.0        |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10032 | R | Read Defined Variable [TT]                                                        |  | OK | 1 | Vuma Mlaba - 435642 | Train |

|       |   |                                                                                |  |    |   |                     |       |
|-------|---|--------------------------------------------------------------------------------|--|----|---|---------------------|-------|
|       |   | (MPU1)li_nrg_tc2battcontactclosedr2___1 = 1.0                                  |  |    |   |                     |       |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc2batteryconnectionr2 = 1.0        |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10034 | A | Trip the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr1___1 = 0.0    |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battcontactclosedr2___1 = 0.0    |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1___1 = 0.0        |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2___1 = 0.0        |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10039 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10040 | A | Timer 30.0 S                                                                   |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10041 | A | Reset the Circuit Breaker CC(ALS) on TC1 CVS AGATE compartment                 |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10042 | A | Trip the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                   |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 1.0        |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 1.0        |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10045 | I | Wait for 30s timer in the next step prior to resetting Circuit Breaker CC(ALS) |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10046 | A | Timer 30.0 S                                                                   |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10047 | A | Reset the Circuit Breaker CC(AL) on TC1 CVS AGATE compartment                  |  | OK |   | Vuma Mlaba - 435642 | Train |

|       |   |                                                                                                          |                                                                                     |    |   |                     |       |
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| 10048 | I | Automatic Train Preparation & Auxiliary Converter Status                                                 |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1automaticstartr1 = 0.0                                     |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr2 = 0.0                                     |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10051 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr1 = 1.0                                                     |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10052 | A | Force [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 1.0                                                     |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10053 | A | Timer 5.0 S                                                                                              |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                                     |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr2 = 0.0                                     |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 1.0                                     |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10057 | R | Lamp 18H1 is ON                                                                                          |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10058 | R | The ACU on TC1 and TC2 are not operational, the ACU appears in Grey colour on the DDU maintenance screen |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR1___1 = 0.0                                  |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR1___1 = 0.0                                  |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1CcAlAcuStatusR2___1 = 0.0                                  |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2CcAlAcuStatusR2___1 = 0.0                                  |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1___1 = 1.0                                 |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |

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| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 1.0         |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 1.0         |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10067 | A | Switch on 3 kV DC on the catenary                                       |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr1 = 1.0         |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr1 = 1.0         |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10072 | R | Aux with reduced performance, lamp 18H1 is OFF                          |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfaultr2 = 0.0    |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10074 | R | Both ACUs are operational                                               |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR1__1 = 1.0  |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc2DcDcGateDriveR2__1 = 1.0  |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR1__1 = 1.0  |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)Li_NRG_Tc1DcDcGateDriveR2__1 = 1.0  |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10079 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr1                        |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |

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| 10080 | A | Release [TT]<br>(MPU1)li_cab_tc1automaticstartr2                                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10081 | I | ACU Isolation and Bypass                                                             |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 1.0                   |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 1.0                   |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10084 | A | Put the switch 18S3 (ACU ISOLATION) to ISOLATION position                            |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 1.0                  |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 0.0                   |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 1.0                   |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10088 | I | The help contactor closes on M2 car                                                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 1.0                   |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10090 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10091 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position                               |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10092 | A | Press the button 22S12 to open HSCB                                                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10093 | R | Button lamp 22S12 is ON                                                              |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10094 | A | Press the button 22S11 to close HSCB                                                 |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10095 | R | Button lamp 22S12 is OFF                                                             |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10096 | R | Both ACUs are operational on DDU Driver's screen                                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0                  |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelpr1 = 0.0                   |  | OK | 0 | Vuma Mlaba - 435642 | Train |

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| 10099 | A | Put the switch 18S3(ACU ISOLATION) to ISOLATION position on TC2                      |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 1.0                  |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1acubypassr1__1 = 1.0                   |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2acubypassr1__1 = 0.0                   |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10103 | I | The help contactor closes on M2 car                                                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelp2 = 1.0                    |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10105 | R | Verify that only one ACU is operational on the DDU, and the help contactor is closed |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10106 | A | Put the switch 18S3 (ACU ISOLATION) to NORMAL position on TC2                        |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10107 | A | Press the button 22S12 to open HSCB                                                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10108 | A | Press the button 22S11 to close HSCB                                                 |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10109 | R | Both ACUs are operational on DDU Driver's screen                                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_tc1converterfault2 = 0.0                  |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelp2 = 0.0                    |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10112 | I | ACU Fault simulation                                                                 |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10113 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC1          |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10114 | A | Lamp 18H1 is ON in the alarm module                                                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10115 | A | Timer 20.0 S                                                                         |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_nrg_m2converterhelp1 = 1.0                    |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10117 | A | Close the ACU AGATE circuit breaker                                                  |  | OK |   | Vuma Mlaba - 435642 | Train |

|       |   |                                                                                          |                                                                                     |    |   |                     |       |
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| 10118 | A | Timer 30.0 S                                                                             |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10119 | A | Open HSCB                                                                                |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)Io_nrg_m2converterhelpr1 = 0.0                       |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10121 | A | Close HSCB                                                                               |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10122 | R | Lamp 18H1 is OFF in the alarm module                                                     |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10123 | A | Inside the ACU, switch off the AGATE by tripping ACU circuit breaker in TC2              |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10124 | A | Lamp 18H1 is ON in the alarm module                                                      |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10125 | A | Timer 20.0 S                                                                             |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10126 | A | Close the ACU AGATE circuit breaker                                                      |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10127 | A | Timer 30.0 S                                                                             |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10128 | A | Open HSCB                                                                                |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10129 | A | Close HSCB                                                                               |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10130 | I | Verifying Aux Converter Output                                                           |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10131 | A | Put the switch 18S3 (ACU ISOLATION) to ISOLATION position on TC1 and TC2                 |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10132 | I | ACU stops working in TC1 and TC2 car                                                     |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)Io_nrg_m2converterhelpr1 = 0.0                       |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10134 | R | Lamp 18H1 is ON in the alarm module                                                      |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10135 | I | This test is performed to verify that the ACUs can supply all the loads without tripping |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10136 | A | Open the circuit breaker 19Q2 on TC1                                                     |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10137 | A | Open the circuit breaker 57Q1 for all HVAC units                                         |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10138 | A | Open the circuit breaker 19Q2 TC2                                                        |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |

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| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0         |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0          |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0          |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0          |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0          |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0         |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0        |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0        |                                                                                     | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10147 | A | Put the switch 18S3 (ACU ISOLATION) to<br>NORMAL position on TC1 and TC2 |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10148 | I | ACU starts working on TC1 and TC2                                        |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10149 | A | Close the circuit breaker 19Q2 TC1                                       |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10150 | A | Close the circuit breaker 57Q1 for all HVAC<br>units                     |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10151 | I | It is necessary to check on the DDU screen<br>for HVAC status            |                                                                                     | OK |   | Vuma Mlaba - 435642 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 1.0         |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 1.0          |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 1.0          |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 1.0          |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 1.0          |                                                                                     | OK | 1 | Vuma Mlaba - 435642 | Train |

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| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 1.0                                                                                                                    |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10158 | A | Close the circuit breaker 19Q2 TC2                                                                                                                                                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                                   |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                                                                                                   |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10161 | R | Verify the circuit breaker 18Q2 ACU on TC1<br>and TC2 have not tripped                                                                                                              |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10162 | A | Release [TT]<br>(MPU1)lo_cab_tc1automaticstartr1                                                                                                                                    |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10163 | A | Release [TT]<br>(MPU1)lo_cab_tc1automaticstartr2                                                                                                                                    |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10164 | I | Shore supply 400Vac                                                                                                                                                                 |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10165 | I | This test is to verify if the Aux converters are<br>able to start-up successfully under external<br>power supply and also charge the batteries<br>without 3kV DC from the catenary. |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10166 | I | The shore supply used should be limited to<br>63A at 400Vac, 50Hz, three phase. A neutral<br>on the shore supply is mandatory.                                                      |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10167 | A | Press the button 22S12 to open the HSCB                                                                                                                                             |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10168 | A | Press switch 21S1 to lower both<br>pantographs                                                                                                                                      |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0                                                                                                                     |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0                                                                                                                     |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                                                                                  |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                                                                                  |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10173 | A | Connect the shore supply on TC1 ACU                                                                                                                                                 |  | OK |   | Vuma Mlaba - 435642 | Train |

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| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0      |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 0.0    |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10178 | A | Press switch 21S1 to raise both pantographs                             |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10179 | A | Close HSCB using the button 22S11                                       |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10180 | I | It is not possible to close HSCB with shore supply connected            |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpr1 = 0.0        |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10182 | A | Remove shore supply from TC1 ACU                                        |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0    |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10187 | A | Connect the shore supply on TC2 ACU                                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 = 1.0    |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0      |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10191 | R | Read Defined Variable [TT]                                              |  | OK | 0 | Vuma Mlaba - 435642 | Train |

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|       |   | (MPU1)li_nrg_tc2contactopen400r2__1 = 0.0                                                                                                                 |  |    |   |                     |       |
| 10192 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10193 | I | It is not possible to close HSCB with shore supply connected                                                                                              |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 0.0                                                                                         |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10195 | A | Remove shore supply from TC2 ACU                                                                                                                          |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10196 | I | Shore Supply with 3kV present                                                                                                                             |  | OK |   | Vuma Mlaba - 435642 | 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 |   | Vuma Mlaba - 435642 | Train |
| 10198 | A | Close HSCB using the button 22S11                                                                                                                         |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1hscbclosepbr1 = 1.0                                                                                         |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0                                                                                   |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10202 | A | Connect the shore supply on TC1 ACU                                                                                                                       |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0                                                                                      |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0                                                                                   |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0                                                                                        |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10207 | A | Force [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 1.0                                                                                                        |  | OK |   | Vuma Mlaba - 435642 | Train |

|       |   |                                                                         |  |    |   |                     |       |
|-------|---|-------------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 1.0 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10210 | R | The HSCBs open                                                          |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10211 | A | Release [TT]<br>(MPU1)li_nrg_tc1shoresupply__1                          |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10212 | A | Remove shore supply from TC1 ACU                                        |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 1.0 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10215 | A | Close HSCB using the button 22S11                                       |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1__1 = 0.0 |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1__1 = 0.0 |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10218 | A | Connect the shore supply on TC2 ACU                                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 0.0    |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1 = 0.0 |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1shoresupply__1 = 0.0      |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 0.0      |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10223 | A | Force [TT]<br>(MPU1)li_nrg_tc2shoresupply__1 = 1.0                      |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0    |  | OK | 1 | Vuma Mlaba - 435642 | Train |

|       |   |                                                                          |  |    |   |                     |       |
|-------|---|--------------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2___1 = 1.0 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10226 | R | The HSCBs open                                                           |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10227 | A | Release [TT]<br>(MPU1)li_nrg_tc2shoresupply___1                          |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10228 | A | Remove shore supply from TC2 ACU                                         |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r1 = 1.0     |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r1___1 = 1.0 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10231 | A | Close HSCB                                                               |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10232 | R | Both ACUs are operational                                                |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10233 | I | ACU reverse mode                                                         |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10234 | A | Open HSCB                                                                |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10235 | R | Verify on the DDU that the HSCB is open on M1 and M2                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10236 | R | Verify on the DDU that all HVACs are only operating in Ventilation mode  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10237 | R | Verify on the DDU that both CVS are operating in reverse mode            |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10238 | R | Verify on the DDU that both MASU are not running                         |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10239 | A | Switch ON the 3kV DC on the catenary                                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10240 | A | Close HSCB using button 22S11                                            |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10241 | R | Line voltage indicator shows at least 2.7kV DC                           |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10242 | R | Verify on the DDU that the HSCB is closed on M1 and M2                   |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10243 | R | Verify on the DDU that all HVACs are operating under normal condition    |  | OK |   | Vuma Mlaba - 435642 | Train |

|       |   |                                                                                            |  |    |   |                     |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10244 | I | Automatic Train De-preparation & Auxiliary Converter status TC2                            |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10245 | A | Press the Automatic start button 20S1 on the Driver's Desk or Virtual button on DDU screen |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1automaticstartr2 = 0.0                       |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr1 = 0.0                       |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10248 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                     |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10249 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                      |  | OK | 0 | Vuma Mlaba - 435642 | Train |
| 10250 | R | Train is in LV ready                                                                       |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10251 | I | Automatic train preparation and de-preparation on TC2                                      |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10252 | A | Insert the Driver's master key on TC2 and turn it to ON position                           |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10253 | A | Close the battery contactor 18S1                                                           |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10254 | A | After the TCMS successful initialization, press the automatic start button 20S1            |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10255 | R | Train is prepared in high voltage                                                          |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10256 | A | Press the automatic start button 20S1 to de-prepare the train                              |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10257 | R | Train is in LV ready                                                                       |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10258 | A | Open the battery contactor 18S1 to shut down the train                                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10259 | R | After few seconds, the train is successfully shutdown                                      |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10260 | A | Close the battery contactor 18S1                                                           |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10261 | A | Wait for the TCMS to successfully initialize                                               |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10262 | A | Before the PACIS initialize, open, and HOLD the battery contactor 18S1 and read the        |  | OK |   | Vuma Mlaba - 435642 | Train |

|       |   |                                                                                                      |  |    |   |                     |       |
|-------|---|------------------------------------------------------------------------------------------------------|--|----|---|---------------------|-------|
|       |   | following:                                                                                           |  |    |   |                     |       |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr1___1 = 1.0                                 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2battoffreqr2___1 = 1.0                                 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10265 | A | Release battery contactor 18S1                                                                       |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10266 | A | Once the PACIS has successfully initialized,<br>Open the battery contactor 18S1.                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10267 | A | Insert the Driver's master key on TC1 and<br>turn it to ON position                                  |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10268 | A | Close the battery contactor 18S1                                                                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10269 | A | Wait for the TCMS to successfully initialize                                                         |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10270 | R | Train is in LV ready                                                                                 |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10271 | A | Open the battery contactor 18S1 to shut<br>down the train                                            |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10272 | A | Close the battery contactor 18S1                                                                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10273 | A | Wait for the TCMS to successfully initialize                                                         |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10274 | A | Before the PACIS initialize, open, and HOLD<br>the battery contactor 18S1 and read the<br>following: |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr1___1 = 1.0                                 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1battoffreqr2___1 = 1.0                                 |  | OK | 1 | Vuma Mlaba - 435642 | Train |
| 10277 | A | Release battery contactor 18S1                                                                       |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10278 | A | Once the PACIS has successfully initialized,<br>Open the battery contactor 18S1.                     |  | OK |   | Vuma Mlaba - 435642 | Train |
| 10279 | I | End of test                                                                                          |  | OK |   | Vuma Mlaba - 435642 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 5 – Computer Network and DDU Screen

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### 5.3 Instructions list

### 5.3.1 025\_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            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | TCMS Network Loop                                                                                                     |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | This is a reflectometry test to check the TCMS complete loop                                                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Please save each result on the Fluke using the cable number given per line                                            |      | OK            |              | Celiwe Sokhela - 491462 | 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            |              | Celiwe Sokhela - 491462 | 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            |              | Celiwe Sokhela - 491462 | 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            |              | Celiwe Sokhela - 491462 | 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            |              | Celiwe Sokhela - 491462 | 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            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | There is good connection between CRS2-M4[25A11] port X3 and CRS2-M2[25A11] port X4 TSX T06                            |      | OK            |              | Celiwe Sokhela - 491462 | 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 |  | Celiwe Sokhela - 491462 | 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 |  | Celiwe Sokhela - 491462 | 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 |  | Celiwe Sokhela - 491462 | 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 |  | Celiwe Sokhela - 491462 | 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 |  | Celiwe Sokhela - 491462 | 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 |  | Celiwe Sokhela - 491462 | Train |
| 10017 | I | Pacis Network Loop                                                                                                  |  | OK |  | Celiwe Sokhela - 491462 | 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 |  | Celiwe Sokhela - 491462 | 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 |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                   |  |    |   |                         |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10020 | R | There is good connection between CRS2-M4[54A11]port X8 and CRS1-M2[54A10]port X7 TSX P03<br><br>Cable is crossed  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 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 |   | Celiwe Sokhela - 491462 | 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 |   | Celiwe Sokhela - 491462 | 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 |   | Celiwe Sokhela - 491462 | 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 |   | Celiwe Sokhela - 491462 | Train |
| 10026 | A | Switch ON the train in TC1 in Normal mode                                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10027 | I | MCE in TC1 should be the master MCE to begin the test                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0                                                    |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 0.0                                                    |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10030 | A | Open the circuit breaker 40Q1 in TC1                                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10031 | I | The MCE in TC2 becomes the master MCE                                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 1.0                                                    |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10033 | A | Close circuit breaker 40Q1 in TC1                                                                                 |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10034 | A | Open circuit breaker 40Q1 in TC2                                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                |  |    |   |                         |       |
|-------|---|----------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10035 | I | The MCE in TC1 becomes the Master                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10037 | A | Close the circuit breaker 40Q1 in TC2                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)NET_LocalMcelsMaster = 1.0 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU2)NET_LocalMcelsMaster = 0.0 |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10040 | A | Go to software version on DDU and select RUN BL.               |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10041 | R | The Train Baseline is : 1.8/10.1/10.2                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10042 | I | End of Test                                                    |  | OK |   | Celiwe Sokhela - 491462 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 6 – Main Circuit Breaker Control

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### 6.3 Instructions list

### 6.3.1 022\_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            |              | Dilikani Ngubane - 526515 | Train   |
| 10002 | I    | Initial Conditions                                                                                                                              |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10003 | I    | This test is to verify the correct operation of the main high voltage circuit breaker.                                                          |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10004 | I    | Train in LV ready                                                                                                                               |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10005 | I    | The catenary should be switched OFF                                                                                                             |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10006 | I    | Circuit breaker 34Q1 should be closed in all Propulsion boxes                                                                                   |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10007 | I    | No Fire Detection alarm on the DDU screen                                                                                                       |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10008 | I    | Start Test                                                                                                                                      |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10009 | I    | HSCB control without High Voltage                                                                                                               |      | OK            |              | Dilikani Ngubane - 526515 | 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            |              | Dilikani Ngubane - 526515 | Train   |
| 10011 | I    | The button 27S5 should not be pressed on both cars                                                                                              |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10012 | A    | Active Cab on TC1                                                                                                                               |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 0.0                                                                                   |      | OK            | 0            | Dilikani Ngubane - 526515 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Dilikani Ngubane - 526515 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Dilikani Ngubane - 526515 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 0.0                                                                                   |      | OK            | 0            | Dilikani Ngubane - 526515 | Train   |

|       |   |                                                               |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 0.0    |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 0.0    |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 0.0    |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 0.0    |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 0.0  |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 0.0  |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 0.0  |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 0.0  |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 1.0    |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 1.0    |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 1.0    |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 1.0    |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10031 | A | Press the button 21S1 to raise<br>Pantographs                 |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10032 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1 =<br>1.0           |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10033 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2 =<br>1.0           |  | OK |   | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                   |  |    |   |                           |       |
|-------|---|-------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10034 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1 = 1.0                  |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10035 | A | Force [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R2 = 1.0                  |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc1firedetection = 0.0 |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_fsd_tc2firedetection = 0.0 |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_DEMCL_HSCB = 1.0     |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_demcl_hscb = 1.0     |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_demcl_hscb = 1.0     |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_demcl_hscb = 1.0     |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_CL = 1.0        |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0        |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0        |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0        |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_HOLD = 1.0      |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0      |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0      |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0      |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0        |  | OK | 0 | Dilikani Ngubane - 526515 | Train |

|       |   |                                                                                                                    |  |    |   |                              |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0                                                         |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0                                                         |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0                                                         |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 0.0                                                      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr2 = 0.0                                                      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10056 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R1                                                                       |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10057 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc1HSCBCLOSE_R2                                                                       |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10058 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R1                                                                       |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10059 | A | Release [TT]<br>(MPU1)Lo_HSC_Tc2HSCBCLOSE_R2                                                                       |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10060 | A | Press the button 21S1 to lower<br>pantographs                                                                      |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10061 | I | Traction Converter Isolation TC1                                                                                   |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10062 | A | Switch ON the 3kV DC on the catenary                                                                               |  | OK |   | Dilikani Ngubane -<br>526515 | 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 |   | Dilikani Ngubane -<br>526515 | Train |
| 10064 | A | Press the button 21S1 to raise<br>pantographs                                                                      |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10065 | A | Press the button 22S11 to close HSCBs                                                                              |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10066 | R | Button lamp 22S11 is ON                                                                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpbr1 = 1.0                                                  |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpbr1 = 0.0                                                  |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                        |  |    |   |                              |       |
|-------|---|------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10077 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2 |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0      |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0              |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 0.0        |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 1.0        |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10086 | A | Press the button 22S11 to close HSCB                                   |  | OK |   | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                              |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10087 | A | Both HSCBs are closed                                                        |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10088 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10089 | A | Open HSCBs                                                                   |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10090 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10091 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10092 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M3/M4          |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10093 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm12 = 0.0               |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10094 | R | Read Defined Variable [TT] (MPU1)li_hsc_tc1tbcubypassm34 = 1.0               |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10095 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10096 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu4bypass = 1.0                       |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10097 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10098 | R | Read Defined Variable [TT] (MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10099 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc1closehscbr2 = 0.0                 |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10100 | R | Read Defined Variable [TT] (MPU1)lo_hsc_tc2closehscbr2 = 1.0                 |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10101 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10102 | A | Both HSCBs are closed                                                        |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10103 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10104 | A | Open HSCBs                                                                   |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10105 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Dilikani Ngubane - 526515 | Train |

|       |   |                                                                              |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10106 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10107 | A | Put the Traction converter isolation switch 22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 1.0            |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 1.0            |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 1.0                    |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                    |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                    |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 1.0                    |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 1.0                |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0                |  | OK | 0 | Dilikani Ngubane - 526515 | Train |
| 10116 | A | Put the Traction converter isolation switch 22S1 to NORMAL position          |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10117 | A | Press the button 22S11 to close HSCB                                         |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10118 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10119 | R | All Traction units are in service and operational                            |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10120 | A | Press the button 22S12 to open the HSCBs                                     |  | OK |   | Dilikani Ngubane - 526515 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr2 = 1.0                |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                |  | OK | 1 | Dilikani Ngubane - 526515 | Train |
| 10123 | A | Press the button 21S1 to lower both pantographs                              |  | OK |   | Dilikani Ngubane - 526515 | Train |

|       |   |                                                                            |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10124 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                     |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10125 | A | Remove active cab on TC1                                                   |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10126 | I | HSCB Operation with High Voltage                                           |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10127 | A | Active Cab on TC2                                                          |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10128 | A | Press the button 21S1 to raise both<br>pantographs                         |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10129 | R | Both pantographs are raised successfully                                   |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10130 | R | The voltage on the Line Voltage Indicator<br>module is at least 2.7 kV DC  |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10131 | A | Press the button 22S11 to close HSCBs                                      |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc1contactopen400r2 =<br>0.0    |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_nrg_tc2contactopen400r2__1<br>= 0.0 |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_li_HSCB_CL = 1.0                 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_cl = 1.0                 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_cl = 1.0                 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_cl = 1.0                 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_li_HSCB_HOLD = 1.0               |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_hold = 1.0               |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_hold = 1.0               |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_hold = 1.0               |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                        |  |    |   |                              |       |
|-------|---|------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_LI_HSCB_OP = 0.0             |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_hscb_op = 0.0             |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_hscb_op = 0.0             |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_hscb_op = 0.0             |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10146 | I | Traction Converter Isolation TC2                                       |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbpr1 = 0.0       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbpr1 = 1.0       |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm12 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc1tbcubypassm34 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 0.0      |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10158 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1/M2 |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0      |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                                 |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0                       |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10165 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10166 | A | Both HSCBs are closed                                                           |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10167 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10168 | A | Open HSCBs                                                                      |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10169 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10170 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10171 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M3/M4          |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 0.0               |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0               |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                       |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                                 |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10180 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10181 | A | Both HSCBs are closed                                                           |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10182 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10183 | A | Open HSCBs                                                                      |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10184 | A | Press the virtual button RESET TRACTION<br>FAULTS on the DDU maintenance screen |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10185 | A | Press the button 22S11 to close HSCB                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10186 | A | Put the Traction converter isolation switch<br>22S1 to ISOLATION M1+M3/M2+M4    |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm12 = 1.0               |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_tc2tbcubypassm34 = 1.0               |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu1bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu2bypass = 1.0                       |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu3bypass = 1.0                       |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)hsc_tbcu4bypass = 0.0                       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc1closehscbr2 = 1.0                 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)lo_hsc_tc2closehscbr2 = 0.0                 |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10195 | A | Put the Traction converter isolation switch<br>22S1 to NORMAL position          |  | OK |   | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                              |  |    |  |                           |       |
|-------|---|------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10196 | A | Press the virtual button RESET TRACTION FAULTS on the DDU maintenance screen |  | OK |  | Dilikani Ngubane - 526515 | Train |
| 10197 | A | Press the button 22S11 to close HSCB                                         |  | OK |  | Dilikani Ngubane - 526515 | Train |
| 10198 | R | All Traction units are in service and operational                            |  | OK |  | Dilikani Ngubane - 526515 | Train |
| 10199 | I | End of test                                                                  |  | OK |  | Dilikani Ngubane - 526515 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 7 – Cabin Control

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### 7.3 Instructions list

### 7.3.1 020\_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            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | Initial Condition                                                            |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | I    | Backup switch should be in Normal Position                                   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | I    | Train should be OFF                                                          |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | I    | Start Test                                                                   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10006 | I    | Cab Active TC1                                                               |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10007 | A    | Insert Driver's Master key and turn it to ON position                        |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10008 | A    | Close the battery contactor 18S1                                             |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10009 | R    | Train successfully start up in normal mode                                   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10010 | A    | Put the direction selector switch to FORWARD position                        |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10011 | A    | Try to put the Driver's master key in OFF position or remove it from the cab |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10012 | R    | It is not possible to remove or turn the Driver's master key                 |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10013 | A    | Put the direction selector switch to NEUTRAL position                        |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0            |      | OK            | 1            | Siphesihle Mchunu - 491465 | Train   |
| 10015 | A    | Turn key to non-active cab                                                   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10016 | A    | Open and close circuit breaker 20Q2                                          |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0             |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |

|       |   |                                                                            |  |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0           |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 0.0          |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10031 | A | Active cab on TC1                                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 1.0           |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 0.0           |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                                                                      |  |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR1 = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1keyrelayr2 = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR3 = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1KeyRelayR4 = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver1 = 0.0                                                    |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver2 = 1.0                                                    |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiver3 = 0.0                                                    |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR4 = 0.0                                                    |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc1CabinActiveR5 = 0.0                                                    |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0                                           |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 0.0                                           |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10046 | I | Train Preparation with Automatic Start<br>button TC1                                                                 |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0                                                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10048 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10049 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10050 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10051 | R | Button lamp 20S1 will flash during train<br>preparation and then light steady after<br>preparation process is finish |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                                        |  |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 1.0                   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10053 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10054 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                  |  | OK | 2 | Siphesihle Mchunu -<br>491465 | Train |
| 10055 | I | Train De-preparation with Automatic Start<br>button TC1                                |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10056 | A | Press the automatic start button 20S1                                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10057 | A | Timer 5.0 S                                                                            |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc1automaticstartr1 = 0.0                   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10059 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10060 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10061 | A | Remove active cab on TC1                                                               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10062 | I | Standby mode TC1                                                                       |  | OK |   | Vuma Mlaba - 435642           | Train |
| 10063 | A | Active cab on TC1                                                                      |  | OK |   | Vuma Mlaba - 435642           | Train |
| 10064 | A | Press the automatic start button 20S1                                                  |  | OK |   | Vuma Mlaba - 435642           | Train |
| 10065 | A | Remove active Cab on TC1                                                               |  | OK |   | Vuma Mlaba - 435642           | Train |
| 10066 | A | Manually isolate EB on M4 using the<br>pneumatic cock C2.3/1                           |  | OK |   | Vuma Mlaba - 435642           | Train |
| 10067 | A | Press the standby mode button 20S2 and<br>maintain it                                  |  | OK |   | Vuma Mlaba - 435642           | Train |
| 10068 | A | Manually isolate EB on TC1 using the<br>pneumatic cock C1.3/1                          |  | OK |   | Vuma Mlaba - 435642           | Train |
| 10069 | R | The pantograph lower and both HSCB<br>open, then the train shuts down<br>automatically |  | OK |   | Vuma Mlaba - 435642           | Train |
| 10070 | A | Normalize the cock on M4                                                               |  | OK |   | Vuma Mlaba - 435642           | Train |

|       |   |                                                                              |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10071 | A | Normalize the cock on TC1                                                    |  | OK |   | Vuma Mlaba - 435642        | Train |
| 10072 | A | Cab Active TC2                                                               |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10073 | A | Insert Driver's Master Key and turn it to ON position                        |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10074 | A | Put the direction selector switch to FORWARD position                        |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10075 | A | Try to put the Driver's master key in OFF position or remove it from the cab |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10076 | R | It is not possible to remove or turn the Driver's master key                 |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10077 | A | Put the direction selector switch to NEUTRAL position                        |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10078 | A | Turn key to non-active cab                                                   |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10079 | A | Open and close the circuit breaker 20Q2                                      |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0            |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey___1 = 0.0            |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey___1 = 0.0            |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr2___1 = 1.0           |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr1___1 = 1.0           |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 1.0               |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr3 = 1.0               |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 1.0            |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 0.0            |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                            |  |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR5 = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2othercabinactive__1<br>= 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1othercabinactive__1<br>= 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10095 | A | Active cab on TC2                                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1masterkey__1 = 0.0           |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2masterkey__1 = 1.0           |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr1__1 = 0.0          |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr3 = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2keyrelayr2__1 = 0.0          |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2KeyRelayR4 = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR1 = 0.0          |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR2 = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR3 = 0.0          |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)Li_CAB_Tc2CabinActiveR4 = 0.0          |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                                                                      |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)li_CAB_Tc2CabinActiveR5 = 0.0                                                    |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                                    |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc10thercabinactive__1<br>= 0.0                                           |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc20thercabinactive__1<br>= 1.0                                           |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10110 | I | Train Preparation with Automatic Start<br>button TC2                                                                 |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2automaticstartr1 = 0.0                                                 |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10112 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10113 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                                |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10114 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10115 | R | Button lamp 20S1 will flash during train<br>preparation and then light steady after<br>preparation process is finish |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 1.0                                                 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10117 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                                                               |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10118 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                                                                |  | OK | 2 | Siphehile Mchunu -<br>491465 | Train |
| 10119 | I | Train De-preparation with Automatic Start<br>button TC2                                                              |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10120 | A | Press the automatic start button 20S1                                                                                |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)lo_cab_tc2automaticstartr1 = 0.0                                                 |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10122 | R | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 0.0                                                               |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                                                         |  |    |   |                               |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10123 | R | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 0.0                                                   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10124 | I | Double Cabin and cabin change                                                                           |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10125 | I | Each cabin must have its own Driver's<br>Master key                                                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10128 | A | Remove active cab on TC2                                                                                |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10129 | A | Open and close the circuit breaker 20Q2                                                                 |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10132 | A | Activate the cab on TC2                                                                                 |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10133 | A | Active cab on TC1                                                                                       |  | OK |   | Siphesihle Mchunu -<br>491465 | 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 |   | Siphesihle Mchunu -<br>491465 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 0.0                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 1.0                                       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10137 | A | Remove active cab on TC2                                                                                |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | 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 |   | Siphesihle Mchunu -<br>491465 | Train |
| 10140 | A | Remove active cab from TC1                                                                              |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                                        |  |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc1cabinactiveno = 1.0                      |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)li_cab_tc2cabinactiveno = 0.0                      |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10143 | I | Standby mode TC2                                                                       |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10144 | A | Active cab on TC2                                                                      |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10145 | A | Press the automatic start button 20S1                                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10146 | A | Remove active Cab on TC2                                                               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10147 | A | Manually isolate EB on M3 using the<br>pneumatic cock C2.3/1                           |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10148 | A | Press the standby mode button 20S2 and<br>maintain it                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10149 | A | Manually isolate EB on TC2 using the<br>pneumatic cock C1.3/1                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10150 | R | The pantograph lower and both HSCB<br>open, then the train shuts down<br>automatically |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10151 | A | Normalize the cock on M3                                                               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10152 | A | Normalize the cock on TC2                                                              |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10153 | I | End of Test                                                                            |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 8 – Internal Lighting

### 8.3 Instructions list

#### 8.3.1 052\_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            |              | Vuma Mlaba - 435642 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10003 | I    | Train should be off                                                                                |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10004 | I    | Main lighting                                                                                      |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage                         |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10006 | I    | Main lighting is 100% brightness                                                                   |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10007 | R    | Main lighting is (ON) on TC1, verify the left and right LEDs are ON in each row in 100% brightness |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10008 | R    | Main lighting is (ON) on M4, verify the left and right LEDs are ON in each row in 100% brightness. |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10009 | R    | Main lighting is (ON) on M1, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10010 | R    | Main lighting is (ON) on M2, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10011 | R    | Main lighting is (ON) on M3, verify the left and right LEDs are ON in each row in 100% brightness  |      | OK            |              | Vuma Mlaba - 435642 | Train   |
| 10012 | R    | Main lighting is (ON) on TC2, verify the left and right LEDs are ON in each row in                 |      | OK            |              | Vuma Mlaba - 435642 | Train   |

|       |   |                                                                       |  |    |  |                     |       |
|-------|---|-----------------------------------------------------------------------|--|----|--|---------------------|-------|
|       |   | 100% brightness                                                       |  |    |  |                     |       |
| 10013 | A | Force [TT] (MPU1)lo_lgt_tc1mainlgtcmd = 0.0                           |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10014 | A | Force [TT] (MPU1)lo_lgt_tc2mainlgtcmd = 0.0                           |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10015 | R | Emergency lighting is (ON) on TC2, brightness has been reduced to low |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10016 | R | Emergency lighting is (ON) on M3, brightness has been reduced to low  |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10017 | R | Emergency lighting is (ON) on M2, brightness has been reduced to low  |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10018 | R | Emergency lighting is (ON) on M1, brightness has been reduced to low  |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10019 | R | Emergency lighting is (ON) on M4, brightness has been reduced to low  |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10020 | R | Emergency lighting is (ON) on TC1, brightness has been reduced to low |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10021 | A | Release [TT] (MPU1)lo_lgt_tc1mainlgtcmd                               |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10022 | A | Release [TT] (MPU1)lo_lgt_tc2mainlgtcmd                               |  | OK |  | Vuma Mlaba - 435642 | Train |
| 10023 | I | End of Test                                                           |  | OK |  | Vuma Mlaba - 435642 | Train |

## Section 9 – Pantograph

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### 9.3 Instructions list

### 9.3.1 021\_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            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Conditions                                                                     |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Main pipe should be 10bar                                                              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | HSCB is open on M1 and M2 and both pantographs are low                                 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | Auxiliary Compressor test must be completed in car level prior to performing this test |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | I    | Mechanical pantograph test must be completed prior to performing this test             |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | I    | EARTHING SWITCH T1 is in NORMAL Position on M1                                         |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | I    | EARTHING SWITCH T1 is in NORMAL Position on M2                                         |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | I    | HVB1 valve is in NORMAL position on M1                                                 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | I    | HVB1 valve is in NORMAL position on M2                                                 |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10011 | I    | Start of Test                                                                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | A    | Active Cab on TC1                                                                      |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | I    | Main Tank pressure switch                                                              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | I    | Make sure the HSCB is open                                                             |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10015 | A    | Empty the main pipe using the cock F2.1/1                                              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | A    | Connect a manometer on valve K2.8 in M1 and measure the pressure                       |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10017 | A    | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M1              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                                                                                 |  |    |   |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10018 | I | The sensor of the pantograph reservoir should switch when the pressure reaches 5.5 bar(+/- 10%)                                 |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10019 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10020 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10021 | A | Connect a manometer on valve K2.8 in M2 and measure the pressure                                                                |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10022 | A | Drain the air in the auxiliary compressor pipe using the valve K2.5 in M2 car                                                   |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10023 | I | The sensor of the pantograph reservoir should switch when the pressure reaches 5.5 bar(+/- 10%)                                 |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10024 | A | Normalize the valve K2.5 and wait                                                                                               |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10025 | R | The auxiliary compressor stops when the pressure reaches 7 bar on K2.8                                                          |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10026 | A | Normalize the main pipe                                                                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10027 | A | Close the HSCB                                                                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10028 | A | Remove the manometer                                                                                                            |  | OK |   | Celiwe Sokhela - 491462 | 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 |   | Celiwe Sokhela - 491462 | Train |
| 10030 | A | Close the circuit breaker 21Q1 in M2                                                                                            |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10031 | R | Auxiliary compressor starts working                                                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr1 = 0.0                                                          |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m1startauxiliarcompr2 = 0.0                                                          |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr1 = 1.0                                                          |  | OK | 1 | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                           |  |    |   |                            |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)lo_pnt_m2startauxiliarcompr2 =<br>1.0 |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10036 | A | Remove the manometer nozzle on M2                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10037 | A | Put HVB1 valve in NORMAL position on<br>M2                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10038 | A | Put the earthing switch in NORMAL<br>position on M2                       |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10039 | A | Put HVB1 valve in NORMAL position on<br>M1                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10040 | A | Put the earthing switch in NORMAL<br>position on M1                       |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10041 | I | End of Test                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 10 – Air Production

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### 10.3 Instructions list

### 10.3.1 019\_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            |              | Dilikani Ngubane - 526515 | Train   |
| 10002 | I    | Initial Conditions                                                               |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10003 | A    | Put the train in LV ready (No High Voltage/No Shore Supply) on TC1 as active cab |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10004 | A    | Drain the air on TC1 main pipe using the cock F2.1/1                             |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10005 | R    | The pressure gauge of the main pipe is 0 bar                                     |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10006 | A    | Normalise the cock                                                               |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10007 | I    | Start of Test                                                                    |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0               |      | OK            | 0            | Dilikani Ngubane - 526515 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                 |      | OK            | 0            | Dilikani Ngubane - 526515 | Train   |
| 10010 | A    | Open circuit breaker 19Q3 on TC1                                                 |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 0.0                    |      | OK            | 0            | Dilikani Ngubane - 526515 | Train   |
| 10012 | A    | Close circuit breaker 19Q3                                                       |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                    |      | OK            | 1            | Dilikani Ngubane - 526515 | Train   |
| 10014 | A    | Open circuit breaker 19Q3 on TC2                                                 |      | OK            |              | Dilikani Ngubane - 526515 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 0.0                    |      | OK            | 0            | Dilikani Ngubane - 526515 | Train   |
| 10016 | A    | Close circuit breaker 19Q3 on TC2                                                |      | OK            |              | Dilikani Ngubane - 526515 | Train   |

|       |   |                                                                                                      |    |   |                              |       |
|-------|---|------------------------------------------------------------------------------------------------------|----|---|------------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0                                        | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                     | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                   | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10020 | I | Main Compressor operation                                                                            | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10021 | A | Press the automatic start button 20S1                                                                | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10022 | I | Both main air compressors start up                                                                   | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                                     | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 1.0                                     | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                                     | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                                     | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0                                   | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                   | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10029 | I | It is necessary to check main pipe pressure<br>on the pneumatic gauge of TC1 and TC2<br>individually | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10030 | A | Wait for 10 minutes, then read the<br>variables below                                                | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                     | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                     | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                     | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                     | OK | 0 | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                                                               |  |    |   |                              |       |
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| 10035 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0                                            |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                            |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10037 | A | Force [TT] NET_TrainTimeEvenDay = 1.0                                                                         |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10038 | A | Drain the air in the main pipe from TC1<br>side using cock F2.1/1 until the pressure<br>reaches below 8.5 bar |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler2 = 1.0                                              |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10041 | A | Normalise the cock F2.1/1 and let the<br>compressor runs until it stops                                       |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10042 | A | Force [TT] NET_TrainTimeEvenDay = 0.0                                                                         |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10043 | A | Drain the air in the main pipe from TC1<br>side using cock F2.1/1 until the pressure<br>reaches below 8.5 bar |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                                              |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10046 | I | Compressor Manual Isolation TC1                                                                               |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10047 | A | Normalise the cock F2.1/1 and let the<br>compressor runs until it stops                                       |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10048 | A | Put the pneumatic switch 19S1 to<br>ISOLATION position                                                        |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr1 = 1.0                                               |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr2 = 1.0                                               |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                                                                                                                           |                                                                                     |    |        |                              |       |
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| 10052 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                                                                                                          |                                                                                     | OK | 0      | Dilikani Ngubane -<br>526515 | Train |
| 10053 | A | Put the pneumatic switch 19S1 to<br>NORMAL position                                                                                                                       |                                                                                     | OK |        | Dilikani Ngubane -<br>526515 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr1 = 0.0                                                                                                           |                                                                                     | OK | 0      | Dilikani Ngubane -<br>526515 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1condemnedr2 = 0.0                                                                                                           |                                                                                     | OK | 0      | Dilikani Ngubane -<br>526515 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplydelay = 0.0                                                                                                          |                                                                                     | OK | 0      | Dilikani Ngubane -<br>526515 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                     | OK | 1      | Dilikani Ngubane -<br>526515 | Train |
| 10058 | R |                                                                                                                                                                           |                                                                                     | OK | 985.71 | Dilikani Ngubane -<br>526515 | Train |
| 10059 | I | Compressor stops when it reaches 10 bar                                                                                                                                   |                                                                                     | OK |        | Dilikani Ngubane -<br>526515 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyok = 1.0                                                                                                             |                                                                                     | OK | 1      | Dilikani Ngubane -<br>526515 | 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 |        | Dilikani Ngubane -<br>526515 | Train |
| 10062 | I | Compressor Remote Isolation TC1                                                                                                                                           |                                                                                     | OK |        | Dilikani Ngubane -<br>526515 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                                                                                          |                                                                                     | OK | 0      | Dilikani Ngubane -<br>526515 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0                                                                                                         |                                                                                     | OK | 1      | Dilikani Ngubane -<br>526515 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0                                                                                                              |                                                                                     | OK | 1      | Dilikani Ngubane -<br>526515 | 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 |        | Dilikani Ngubane -<br>526515 | Train |
| 10067 | A | Release the air in the main pipe until it<br>reaches below 8.5 bar                                                                                                        |                                                                                     | OK |        | Dilikani Ngubane -<br>526515 | Train |
| 10068 | A | Open circuit breaker 19Q3                                                                                                                                                 |                                                                                     | OK |        | Dilikani Ngubane -<br>526515 | Train |

|       |   |                                                                    |  |    |   |                              |       |
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| 10069 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10070 | A | Press the button 19S2 and hold                                     |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10074 | A | Release the button 19S2                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10078 | A | Open circuit breaker 19Q2 in the LVB                               |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 0.0  |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10080 | A | Press and hold the button 19S2                                     |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 0.0       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10082 | A | Release the button 19S2                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1remotecb = 0.0       |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10084 | A | Close circuit breaker 19Q3                                         |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10085 | A | Press 19S2 and RELEASE in less than a second                       |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1remotecb = 1.0       |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc1mcbcompressor = 1.0  |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |

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| 10088 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 1.0 |  | OK | 1       | Dilikani Ngubane -<br>526515 | Train |
| 10089 | I | Compressor Manual Isolation TC2                                    |  | OK |         | Dilikani Ngubane -<br>526515 | Train |
| 10090 | A | Put the pneumatic switch 19S1 to<br>ISOLATION position             |  | OK |         | Dilikani Ngubane -<br>526515 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 1.0    |  | OK | 1       | Dilikani Ngubane -<br>526515 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 1.0    |  | OK | 1       | Dilikani Ngubane -<br>526515 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu1airsupplyrunning = 0.0 |  | OK | 0       | Dilikani Ngubane -<br>526515 | Train |
| 10094 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 1.0                   |  | OK |         | Dilikani Ngubane -<br>526515 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0 |  | OK | 0       | Dilikani Ngubane -<br>526515 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1       | Dilikani Ngubane -<br>526515 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0       | Dilikani Ngubane -<br>526515 | Train |
| 10098 | A | Put the pneumatic switch 19S1 to<br>NORMAL position                |  | OK |         | Dilikani Ngubane -<br>526515 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr1 = 0.0    |  | OK | 0       | Dilikani Ngubane -<br>526515 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2condemnedr2 = 0.0    |  | OK | 0       | Dilikani Ngubane -<br>526515 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0 |  | OK | 1       | Dilikani Ngubane -<br>526515 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0   |  | OK | 0       | Dilikani Ngubane -<br>526515 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0      |  | OK | 1       | Dilikani Ngubane -<br>526515 | Train |
| 10104 | I | Compressor stops when it reaches 10 bar                            |  | OK |         | Dilikani Ngubane -<br>526515 | Train |
| 10105 | R |                                                                    |  | OK | 1003.09 | Dilikani Ngubane -<br>526515 | Train |

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| 10106 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 0.0                                            |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10107 | A | Remove active cab on TC1                                                                                      |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyok = 1.0                                                 |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10109 | A | Active cab on TC2                                                                                             |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplydelay = 0.0                                              |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10111 | I | Compressor Remote Isolation TC2                                                                               |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                             |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                                  |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10114 | 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 |   | Dilikani Ngubane -<br>526515 | Train |
| 10115 | A | Release the air in the main pipe until it<br>reaches below 8.5 bar                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                            |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10117 | A | Open circuit breaker 19Q3                                                                                     |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10118 | A | Press and hold the button 19S2                                                                                |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                                  |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                             |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10121 | A | Release the button 19S2                                                                                       |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                             |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                                  |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10124 | A | Open circuit breaker 19Q2 in LVB                                                                              |  | OK |   | Dilikani Ngubane -<br>526515 | Train |

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| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 0.0                                                                           |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10126 | A | Press and hold the button 19S2                                                                                                              |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 0.0                                                                                |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10128 | A | Release the button 19S2                                                                                                                     |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10129 | A | Close circuit breaker 19Q3                                                                                                                  |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2remotecb = 0.0                                                                                |  | OK | 0 | Dilikani Ngubane -<br>526515 | Train |
| 10131 | A | Press 19S2 and RELEASE in less than a second                                                                                                |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2mcbcompressor = 1.0                                                                           |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)air_bcu2airsupplyrunning = 1.0                                                                          |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_air_tc2remotecb = 1.0                                                                                |  | OK | 1 | Dilikani Ngubane -<br>526515 | Train |
| 10135 | I | Air tightness of Main pipe and other pneumatic systems on train                                                                             |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10136 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                                                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10137 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                                                                            |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10138 | A | Empty the main pipe pressure using draining cock A5/1 until it reaches below 7.5 bar                                                        |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10139 | I | Put both compressors in service by closing circuit breaker 19Q2 and also ensure isolation switch 19S1 is in NORMAL position on both TC cars |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                                                                |  | OK |   | Dilikani Ngubane -<br>526515 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                                                                |  | OK |   | Dilikani Ngubane -<br>526515 | Train |

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| 10142 | I | Only one compressor starts when the pressure reaches below 8.5 bar. At 10bar +/- 0.2 bar the compressor stops.                                                                                       |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10143 | I | After 10 minutes, the air in the main pipe should not be less than 9.3 bar                                                                                                                           |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10144 | R | Read Undefined Variable [TT] (MPU1)air_bcu1mrpres                                                                                                                                                    |  | OK | 974.65 | Dilikani Ngubane - 526515 | Train |
| 10145 | I | Air tightness of main reservoirs and associated devices combined with other pneumatic equipment's                                                                                                    |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10146 | A | Isolate the Service and Emergency Brake circuit of each car by turning the isolation cocks C1.3/1 and C.2.3/1 towards the isolation position                                                         |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10147 | A | Reset the air in the main pipe to 10 bar+/- 0.2 bar                                                                                                                                                  |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10148 | I | If necessary drain the air in the main pipe until at least one compressor starts to reset the pressure to 10 bar                                                                                     |  | OK |        | Dilikani Ngubane - 526515 | 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 |        | Dilikani Ngubane - 526515 | Train |
| 10150 | R |                                                                                                                                                                                                      |  | OK | 9.8    | Dilikani Ngubane - 526515 | Train |
| 10151 | A | NORMALISE the isolation cocks C1.3/1 and C2.3/1                                                                                                                                                      |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10152 | I | Air tightness of brake cylinders and auxiliary reservoirs                                                                                                                                            |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10153 | R | The pressure on the pneumatic indicator is 10 bar +/-0.2 bar                                                                                                                                         |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10154 | A | Select driving direction to FORWARD position                                                                                                                                                         |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10155 | A | Put Master Controller in 100% Service brake position                                                                                                                                                 |  | OK |        | Dilikani Ngubane - 526515 | Train |
| 10156 | A | Using the manometer, check the SB values in each brake panel, in each car the pressure should not decrease more than                                                                                 |  | OK |        | Dilikani Ngubane - 526515 | Train |

|       |   |                                                                                                                                                                     |                                                                                   |    |     |                           |       |
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|       |   | 20kPa in over 12 minutes                                                                                                                                            |                                                                                   |    |     |                           |       |
| 10157 | R | SB TC1<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                     |                                                                                   | OK | 127 | Dilikani Ngubane - 526515 | Train |
| 10158 | R | SB M4<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                      |                                                                                   | OK | 139 | Dilikani Ngubane - 526515 | Train |
| 10159 | R | SB M1<br>Result Min/Max : 137<= x <= 177 (kPa)                                                                                                                      |                                                                                   | OK | 138 | Dilikani Ngubane - 526515 | Train |
| 10160 | R | SB M2<br>Result Min/Max : 137<= x <= 176 (kPa)                                                                                                                      |                                                                                   | OK | 137 | Dilikani Ngubane - 526515 | Train |
| 10161 | R | SB M3<br>Result Min/Max : 133<= x <= 173 (kPa)                                                                                                                      |                                                                                   | OK | 135 | Dilikani Ngubane - 526515 | Train |
| 10162 | R | SB TC2<br>Result Min/Max : 118<= x <= 158 (kPa)                                                                                                                     |                                                                                   | OK | 127 | Dilikani Ngubane - 526515 | 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 |     | Dilikani Ngubane - 526515 | Train |
| 10164 | I | Draining Cock for Intercar                                                                                                                                          |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10165 | I | Air in the main pipe should be 10 bar +/- 0.2 bar                                                                                                                   |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10166 | A | This test is to ensure that the draining cocks are fully functional                                                                                                 |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10167 | A | Isolate all the cocks from M3 to M4                                                                                                                                 |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10168 | A | Drain the air on TC1 car using the cock F2.1/1                                                                                                                      |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10169 | A | Drain the air on M4 car using the cock F2.1/1                                                                                                                       |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10170 | A | Drain the air on M1 car using the cock F2.1/1                                                                                                                       |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10171 | A | Drain the air on M2 car using the cock F2.1/1                                                                                                                       |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10172 | A | Drain the air on M3 car using the cock F2.1/1                                                                                                                       |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10173 | A | Drain the air on TC2 car using the cock F2.1/1                                                                                                                      |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |
| 10174 | A | Normalise all the cocks                                                                                                                                             |                                                                                   | OK |     | Dilikani Ngubane - 526515 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

|       |   |                                                                                              |  |    |  |                           |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|--|---------------------------|-------|
| 10175 | A | Use the tool on the top right corner to add the manometer used for this test (serial number) |  | OK |  | Dilikani Ngubane - 526515 | Train |
| 10176 | I | End of Test                                                                                  |  | OK |  | Dilikani Ngubane - 526515 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 11 – Monitoring Circuit Breakers

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### 11.3 Instructions list

### 11.3.1 080\_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            |              | Impi Tsela - 435647 | Train   |
| 10002 | I    | TC1                                                              |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10003 | A    | Open the circuit breaker 15Q4                                    |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10004 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 0.0 |      | OK            | 0            | Impi Tsela - 435647 | Train   |
| 10005 | A    | Close the circuit breaker 15Q4                                   |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb110distrib = 1.0 |      | OK            | 1            | Impi Tsela - 435647 | Train   |
| 10007 | A    | Open the circuit breaker 13Q1                                    |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 0.0 |      | OK            | 0            | Impi Tsela - 435647 | Train   |
| 10009 | A    | Close the circuit breaker 13Q1                                   |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb230distrib = 1.0 |      | OK            | 1            | Impi Tsela - 435647 | Train   |
| 10011 | A    | Open the circuit breaker 57Q1                                    |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 0.0 |      | OK            | 0            | Impi Tsela - 435647 | Train   |
| 10013 | A    | Close the circuit breaker 57Q1                                   |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cb400distrib = 1.0 |      | OK            | 1            | Impi Tsela - 435647 | Train   |
| 10015 | A    | Open the circuit breaker 72Q1                                    |      | OK            |              | Impi Tsela - 435647 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 0.0     |      | OK            | 0            | Impi Tsela - 435647 | Train   |
| 10017 | A    | Close the circuit breaker 72Q1                                   |      | OK            |              | Impi Tsela - 435647 | Train   |

|       |   |                                                                   |  |    |   |                     |       |
|-------|---|-------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbauxfct = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10019 | A | Open the circuit breaker 40Q4                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10021 | A | Close the circuit breaker 40Q4                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbbrake = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10023 | A | Open the circuit breaker 50Q7                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10025 | A | Close the circuit breaker 50Q7                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdoors = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10027 | A | Open the circuit breaker 22Q1                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10029 | A | Close the circuit breaker 22Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbenergy = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10031 | A | Open the circuit breaker 44Q1                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10034 | A | Close the circuit breaker 44Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsafetyfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10037 | A | Open the circuit breaker 72Q2                                     |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                    |  |    |   |                     |       |
|-------|---|--------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10039 | A | Close the circuit breaker 72Q2                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbsockets = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10041 | A | Open the circuit breaker 25Q11                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU2)Li_DDK_Tc1CbTcms1R2 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10043 | A | Close the circuit breaker 25Q11                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10044 | A | Open the circuit breaker 25Q13                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10046 | A | Close the circuit breaker 25Q13                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r1 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms1r2 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10049 | A | Open the circuit breaker 25Q10                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10052 | A | Close the circuit breaker 25Q10                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r1 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbtcms2r2 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10055 | A | Open the circuit breaker 75Q1                                      |  | OK |   | Impi Tsela - 435647 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |

|       |   |                                                                    |  |    |   |                     |       |
|-------|---|--------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10058 | A | Close the circuit breaker 75Q1                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc1cbdrivingfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10061 | I | M4                                                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10062 | A | Open the circuit breaker 15Q4                                      |  | OK |   | Impi Tsela - 435647 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10064 | A | Close the circuit breaker 15Q4                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb110distrib = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10066 | A | Open the circuit breaker 13Q1                                      |  | OK |   | Impi Tsela - 435647 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10068 | A | Close the circuit breaker 13Q1                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb230distrib = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10070 | A | Open the circuit breaker 57Q1                                      |  | OK |   | Impi Tsela - 435647 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10072 | A | Close the circuit breaker 57Q1                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cb400distrib = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10074 | A | Open the circuit breaker 40Q1                                      |  | OK |   | Impi Tsela - 435647 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 0.0         |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10076 | A | Close the circuit breaker 40Q1                                     |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                  |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbbrake = 1.0       |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10078 | A | Open the circuit breaker 50Q4                                    |  | OK |   | Impi Tsela - 435647   | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 0.0       |  | OK | 0 | Impi Tsela - 435647   | Train |
| 10080 | A | Close the circuit breaker 50Q4                                   |  | OK |   | Impi Tsela - 435647   | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbdoors = 1.0       |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10082 | A | Open the circuit breaker 57Q2                                    |  | OK |   | Impi Tsela - 435647   | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Impi Tsela - 435647   | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 0.0        |  | OK | 0 | Impi Tsela - 435647   | Train |
| 10085 | A | Close the circuit breaker 57Q2                                   |  | OK |   | Impi Tsela - 435647   | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbhvac = 1.0        |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10087 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 0.0    |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10089 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Impi Tsela - 435647   | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cblighting = 1.0    |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10091 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Impi Tsela - 435647   | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 0.0        |  | OK | 0 | Impi Tsela - 435647   | Train |
| 10093 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Impi Tsela - 435647   | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbpacs = 1.0        |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10095 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Impi Tsela - 435647   | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647   | Train |

|       |   |                                                                  |  |    |   |                     |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10098 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsafetyfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10101 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10103 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbsockets = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10105 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10108 | A | Close the circuit breaker 25Q6                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r1 = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms1r2 = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10111 | A | Open the circuit breaker 25Q10                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10113 | A | Close the circuit breaker 25Q10                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10114 | A | Open the circuit breaker 25Q14                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10116 | A | Close the circuit breaker 25Q14                                  |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                 |  |    |   |                     |       |
|-------|---|-----------------------------------------------------------------|--|----|---|---------------------|-------|
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r1 = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtcms2r2 = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10119 | A | Open the circuit breaker 33Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 0.0   |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10121 | A | Close the circuit breaker 33Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbtraction = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10123 | A | Open the circuit breaker 55Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 0.0  |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10125 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m4cbvideoinfo = 1.0  |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10127 | I | M1                                                              |  | OK |   | Impi Tsela - 435647 | Train |
| 10128 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10130 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb110distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10132 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10134 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb230distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10136 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                 |  |    |   |                     |       |
|-------|---|-----------------------------------------------------------------|--|----|---|---------------------|-------|
| 10137 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10138 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cb400distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10140 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10142 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbbrake = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10144 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10146 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbdoors = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10148 | A | Open the circuit breaker 21Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10150 | A | Close the circuit breaker 21Q2                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbenergy = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10152 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10154 | A | Close the circuit breaker 57Q2                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbhvac = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10156 | A | Open the circuit breaker 52Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                  |  |    |   |                     |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10158 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cblighting = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10160 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacs = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10162 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbpacs = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10164 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10167 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsafetyfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10170 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10172 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbsockets = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10174 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtms1r1 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |

|       |   |                                                                |  |    |   |                       |       |
|-------|---|----------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 0.0   |  | OK | 0 | Impi Tsela - 435647   | Train |
| 10177 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Impi Tsela - 435647   | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r1 = 1.0   |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms1r2 = 1.0   |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10180 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 0.0   |  | OK | 0 | Amanda Ntuli - 526239 | Train |
| 10182 | A | Close the circuit breaker 25Q10                                |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10183 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Impi Tsela - 435647   | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 0.0   |  | OK | 0 | Impi Tsela - 435647   | Train |
| 10185 | A | Close the circuit breaker 25Q14                                |  | OK |   | Impi Tsela - 435647   | Train |
| 10186 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r1 = 1.0   |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtcms2r2 = 1.0   |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10188 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Impi Tsela - 435647   | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 0.0  |  | OK | 0 | Impi Tsela - 435647   | Train |
| 10190 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Impi Tsela - 435647   | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbtraction = 1.0  |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10192 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Impi Tsela - 435647   | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 0.0 |  | OK | 0 | Impi Tsela - 435647   | Train |
| 10194 | A | Close the circuit breaker 55Q2                                 |  | OK |   | Impi Tsela - 435647   | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m1cbvideoinfo = 1.0 |  | OK | 1 | Impi Tsela - 435647   | Train |

|       |   |                                                                 |  |    |   |                     |       |
|-------|---|-----------------------------------------------------------------|--|----|---|---------------------|-------|
| 10196 | I | M2                                                              |  | OK |   | Impi Tsela - 435647 | Train |
| 10197 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10199 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb110distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10201 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10203 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb230distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10205 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10207 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cb400distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10209 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10211 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbbrake = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10213 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10215 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                               |  |    |   |                     |       |
|-------|---|---------------------------------------------------------------|--|----|---|---------------------|-------|
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbdoors = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10217 | A | Open the circuit breaker 21Q2                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 0.0   |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10219 | A | Close the circuit breaker 21Q2                                |  | OK |   | Impi Tsela - 435647 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbenergy = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10221 | A | Open the circuit breaker 62Q2                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 0.0  |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 0.0  |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10224 | A | Close the circuit breaker 62Q2                                |  | OK |   | Impi Tsela - 435647 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr1 = 1.0  |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbertmsr2 = 1.0  |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10227 | A | Open the circuit breaker 57Q2                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvac = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10229 | A | Close the circuit breaker 57Q2                                |  | OK |   | Impi Tsela - 435647 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbhvac = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10231 | A | Open the circuit breaker 52Q4                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10233 | A | Close the circuit breaker 52Q4                                |  | OK |   | Impi Tsela - 435647 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cblighting = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10235 | A | Open the circuit breaker 54Q10                                |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                  |  |    |   |                     |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10236 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10237 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbpacs = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10239 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10242 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsafetyfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10245 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10247 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbsockets = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10249 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10252 | A | Close the circuit breaker 25Q6                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r1 = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms1r2 = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |

|       |   |                                                                 |  |    |   |                     |       |
|-------|---|-----------------------------------------------------------------|--|----|---|---------------------|-------|
| 10255 | A | Open the circuit breaker 25Q10                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10257 | A | Close the circuit breaker 25Q10                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10258 | A | Open the circuit breaker 25Q14                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10260 | A | Close the circuit breaker 25Q14                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10261 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r1 = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10262 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtcms2r2 = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10263 | A | Open the circuit breaker 33Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 0.0   |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10265 | A | Close the circuit breaker 33Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbtraction = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10267 | A | Open the circuit breaker 55Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 0.0  |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10269 | A | Close the circuit breaker 55Q2                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m2cbvideoinfo = 1.0  |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10271 | I | M3                                                              |  | OK |   | Impi Tsela - 435647 | Train |
| 10272 | A | Open the circuit breaker 15Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10274 | A | Close the circuit breaker 15Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                 |  |    |   |                     |       |
|-------|---|-----------------------------------------------------------------|--|----|---|---------------------|-------|
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb110distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10276 | A | Open the circuit breaker 13Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10278 | A | Close the circuit breaker 13Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb230distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10280 | A | Open the circuit breaker 57Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10282 | A | Close the circuit breaker 57Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cb400distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10284 | A | Open the circuit breaker 40Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10286 | A | Close the circuit breaker 40Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10287 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbbrake = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10288 | A | Open the circuit breaker 50Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10289 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10290 | A | Close the circuit breaker 50Q4                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbdoors = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10292 | A | Open the circuit breaker 57Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvacc = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10294 | A | Close the circuit breaker 57Q2                                  |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                  |  |    |   |                     |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbhvac = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10296 | A | Open the circuit breaker 52Q4                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 0.0    |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10298 | A | Close the circuit breaker 52Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cblighting = 1.0    |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10300 | A | Open the circuit breaker 54Q10                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpacs = 0.0        |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10302 | A | Close the circuit breaker 54Q10                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbpacs = 1.0        |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10304 | A | Open the circuit breaker 44Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10307 | A | Close the circuit breaker 44Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsafetyfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10310 | A | Open the circuit breaker 13Q2                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10312 | A | Close the circuit breaker 13Q2                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbsockets = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10314 | A | Open the circuit breaker 25Q6                                    |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                |  |    |   |                     |       |
|-------|---|----------------------------------------------------------------|--|----|---|---------------------|-------|
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 0.0   |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 0.0   |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10317 | A | Close the circuit breaker 25Q6                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r1 = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms1r2 = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10320 | A | Open the circuit breaker 25Q10                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 0.0   |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10322 | A | Close the circuit breaker 25Q10                                |  | OK |   | Impi Tsela - 435647 | Train |
| 10323 | A | Open the circuit breaker 25Q14                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 0.0   |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10325 | A | Close the circuit breaker 25Q14                                |  | OK |   | Impi Tsela - 435647 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r1 = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtcms2r2 = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10328 | A | Open the circuit breaker 33Q1                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 0.0  |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10330 | A | Close the circuit breaker 33Q1                                 |  | OK |   | Impi Tsela - 435647 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbtraction = 1.0  |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10332 | A | Open the circuit breaker 55Q2                                  |  | OK |   | Impi Tsela - 435647 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10334 | A | Close the circuit breaker 55Q2                                 |  | OK |   | Impi Tsela - 435647 | Train |

|       |   |                                                                  |  |    |   |                     |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_m3cbvideoinfo = 1.0   |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10336 | I | TC2                                                              |  | OK |   | Impi Tsela - 435647 | Train |
| 10337 | A | Open the circuit breaker 15Q4                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10339 | A | Close the circuit breaker 15Q4                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb110distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10341 | A | Open the circuit breaker 13Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10343 | A | Close the circuit breaker 13Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb230distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10345 | A | Open the circuit breaker 57Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10347 | A | Close the circuit breaker 57Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cb400distrib = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10349 | A | Open the circuit breaker 72Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10351 | A | Close the circuit breaker 72Q1                                   |  | OK |   | Impi Tsela - 435647 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbauxfct = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10353 | A | Open the circuit breaker 40Q4                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |

|       |   |                                                                   |  |    |   |                     |       |
|-------|---|-------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10355 | A | Close the circuit breaker 40Q4                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbbrake = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10357 | A | Open the circuit breaker 50Q7                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 0.0       |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10359 | A | Close the circuit breaker 50Q7                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdoors = 1.0       |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10361 | A | Open the circuit breaker 22Q1                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10363 | A | Close the circuit breaker 22Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbenergy = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10365 | A | Open the circuit breaker 44Q1.                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10368 | A | Close the circuit breaker 44Q1                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsafetyfctr2 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10371 | A | Open the circuit breaker 72Q2                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 0.0     |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10373 | A | Close the circuit breaker 72Q2                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbsockets = 1.0     |  | OK | 1 | Impi Tsela - 435647 | Train |

|       |   |                                                                    |  |    |   |                     |       |
|-------|---|--------------------------------------------------------------------|--|----|---|---------------------|-------|
| 10375 | A | Open the circuit breaker 25Q11                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r1 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10377 | A | Close the circuit breaker 25Q11                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10378 | A | Open the circuit breaker 25Q15                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10380 | A | Close the circuit breaker 25Q15                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r1 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms1r2 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10383 | A | Open the circuit breaker 25Q10                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10384 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10385 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 0.0      |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10386 | A | Close the circuit breaker 25Q10                                    |  | OK |   | Impi Tsela - 435647 | Train |
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r1 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbtcms2r2 = 1.0      |  | OK | 1 | Impi Tsela - 435647 | Train |
| 10389 | A | Open the circuit breaker 75Q1                                      |  | OK |   | Impi Tsela - 435647 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 0.0 |  | OK | 0 | Impi Tsela - 435647 | Train |
| 10392 | A | Close the circuit breaker 75Q1                                     |  | OK |   | Impi Tsela - 435647 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr1 = 1.0 |  | OK | 1 | Impi Tsela - 435647 | Train |

|       |   |                                                                                    |  |    |   |                       |       |
|-------|---|------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_ddk_tc2cbdrivingfctr2 = 1.0                 |  | OK | 1 | Impi Tsela - 435647   | Train |
| 10395 | R | On the Driver's event list, check there are no IOS recorded about circuit breakers |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10396 | I | End of Test                                                                        |  | OK |   | Amanda Ntuli - 526239 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

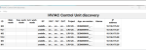
## Section 12 – HVAC Air Conditioning

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### 12.3 Instructions list

### 12.3.1 057\_HVAC-HVAC Air Conditioning

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            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10002 | I    | HVAC panel key switch should be in AUTO position for all cars                                                                                                                                                                                                                                 |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10003 | I    | Train Prepared in High voltage with active cab on TC1                                                                                                                                                                                                                                         |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10004 | I    | Please note that HVAC has protection against too low and too high temperatures. Normally the event that HVAC will be report is BLP when the temperature is too cold, or it will report high duct temperature if the temperature is too hot. It is important to note that this is not a fault. |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10005 | I    | The HVAC parameters are set on the DDU maintenance screen                                                                                                                                                                                                                                     |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10006 | I    | Cabin TC1                                                                                                                                                                                                                                                                                     |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10007 | I    | Use the temperature sensor to verify the temperature of the cabin                                                                                                                                                                                                                             |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10008 | I    | Open the Program HCU_finder.exe click on the IP address of a specific car, check the picture attached                                                                                                                                                                                         |  | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10009 | I    | Check the Steps below and compare with Maintenance software                                                                                                                                                                                                                                   |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10010 | A    | Turn Key 30A1.S1 to Active Cabin Position on TC1                                                                                                                                                                                                                                              |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10011 | A    | Select the switch 57S1 to Low-Speed Ventilation                                                                                                                                                                                                                                               |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10012 | A    | Select the switch '57S2' to position 1                                                                                                                                                                                                                                                        |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10013 | R    | Temperature is set to 20°C                                                                                                                                                                                                                                                                    |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10014 | A    | Select the switch '57S2' to position 2                                                                                                                                                                                                                                                        |                                                                                     | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |

|       |   |                                                                                                                         |  |    |  |                               |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
| 10015 | R | Temperature is set to 22°C                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10016 | A | Select the switch '57S2' to position 3                                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10017 | R | Temperature is set to 24°C                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10018 | A | Select the switch '57S2' to position 4                                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10019 | R | Temperature is set to 26°C                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10020 | A | Now select the switch '57S1' to High Ventilation                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10021 | A | Select the switch '57S2' to position 1                                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10022 | R | Temperature is set to 20°C                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10023 | A | Select the switch '57S2' to position 2                                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10024 | R | Temperature is set to 22°C                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10025 | A | Select the switch '57S2' to position 3                                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10026 | R | Temperature is set to 24°C                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10027 | A | Select the switch '57S2' to position 4                                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10028 | R | Temperature is set to 26°C                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10029 | I | Cabin HVAC Fault on TC1                                                                                                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10030 | A | Select the switch '57S1' to OFF position                                                                                |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10031 | A | Trip the Circuit-Breaker F120 to simulate the fault. Located in HVAC Control Panel                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10032 | A | Turn on the cabin HVAC by switch '57S1' and verify on HCU Finder if the operation is according to the selected position |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10033 | R | Operation speed selection is working properly                                                                           |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10034 | A | Select the switch '57S1' to OFF position                                                                                |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10035 | A | Normalize the Circuit Breaker F120                                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10036 | A | Turn on the cabin HVAC by switch '57S1' and check its behaviour.                                                       |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10037 | I | Cabin Footrest Heater Test on TC1                                                                                      |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10038 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 0.0                                                   |  | OK | 0 | Paseka Ditlhakanyane - 491468 | Train |
| 10039 | R | Foot Heater is Off                                                                                                     |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10040 | A | Simulate a failure of the heater by opening circuit breaker 57Q2                                                       |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10041 | A | Press the button 57S3                                                                                                  |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10042 | R | Foot Heater is Off                                                                                                     |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10043 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 1.0                                                   |  | OK | 1 | Paseka Ditlhakanyane - 491468 | Train |
| 10044 | A | Release '57S3' pushbutton                                                                                              |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10045 | A | Close circuit breaker 57Q2                                                                                             |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10046 | A | Press the button 57S3 to activate the foot heater                                                                      |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10047 | R | Read Defined Variable [TT] (MPU1)li_hva_tc1footheaterfault___1 = 0.0                                                   |  | OK | 0 | Paseka Ditlhakanyane - 491468 | Train |
| 10048 | R | Foot Heater is ON                                                                                                      |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10049 | I | HVAC Saloon TC1                                                                                                        |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10050 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for TC1                                |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10051 | A | On the maintenance software web-browser, clear all the alarms and events for TC1 car                                   |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10052 | A | Launch the HVAC test for TC1 car on the DDU maintenance screen                                                         |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10053 | A | On the maintenance software, check that the HVAC mode for TC1 corresponds to the status on the DDU Screen. For every 3 |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                                                                                                         |  |    |  |                               |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
|       |   | minutes the HVAC mode should change between Ventilation, Heating and Cooling                                                                                                                            |  |    |  |                               |       |
| 10054 | R | After 9 to 12 minutes, the TC1 saloon HVAC test has passed.                                                                                                                                             |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10055 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10056 | A | Launch the HVAC test for the TC1 Cab                                                                                                                                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10057 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10058 | R | After 9 to 12 minutes, the TC1 cab HVAC test has passed.                                                                                                                                                |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10059 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10060 | I | HVAC Saloon M4                                                                                                                                                                                          |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10061 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M4                                                                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10062 | A | On the maintenance software web-browser, clear all the alarms and events for M4 car                                                                                                                     |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10063 | A | Launch the HVAC test for M4 car on the DDU maintenance screen                                                                                                                                           |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10064 | A | On the maintenance software, check that the HVAC mode for M4 corresponds to the status on the DDU Screen. For every 3 minutes the HVAC mode should change between Ventilation, Heating and Cooling      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10065 | R | After 9 to 12 minutes, the M4 saloon HVAC test has passed.                                                                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10066 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault                                                                                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                                                                                                    |  |    |  |                               |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
|       |   | finding.                                                                                                                                                                                           |  |    |  |                               |       |
| 10067 | I | HVAC Saloon M1                                                                                                                                                                                     |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10068 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M1                                                                                                             |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10069 | A | On the maintenance software web-browser, clear all the alarms and events for M1 car                                                                                                                |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10070 | A | Launch the HVAC test for M1 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10071 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10072 | R | After 9 to 12 minutes, the M1 saloon HVAC test has passed.                                                                                                                                         |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10073 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10074 | I | HVAC Saloon M2                                                                                                                                                                                     |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10075 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M2                                                                                                             |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10076 | A | On the maintenance software web-browser, clear all the alarms and events for M2 car                                                                                                                |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10077 | A | Launch the HVAC test for M2 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10078 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10079 | R | After 9 to 12 minutes, the M2 saloon HVAC test has passed.                                                                                                                                         |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10080 | I | If the test has not passed, use the maintenance software to check the alarms                                                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                                                                                                     |  |    |  |                               |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
|       |   | recorded during testing to help with fault finding.                                                                                                                                                 |  |    |  |                               |       |
| 10081 | I | HVAC Saloon M3                                                                                                                                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10082 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for M3                                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10083 | A | On the maintenance software web-browser, clear all the alarms and events for M3 car                                                                                                                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10084 | A | Launch the HVAC test for M3 car on the DDU maintenance screen                                                                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10085 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10086 | R | After 9 to 12 minutes, the M3 saloon HVAC test has passed.                                                                                                                                          |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10087 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10088 | I | HVAC Saloon TC2                                                                                                                                                                                     |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10089 | A | Open the Program HCU_finder.exe click on the line where it shows the IP Address for TC2                                                                                                             |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10090 | A | On the maintenance software web-browser, clear all the alarms and events for TC2 car                                                                                                                |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10091 | A | Launch the HVAC test for TC2 car on the DDU maintenance screen                                                                                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10092 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10093 | R | After 9 to 12 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                         |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                                                                                                         |  |    |  |                               |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
| 10094 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10095 | A | Launch the HVAC test for the TC2 Cab                                                                                                                                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10096 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10097 | R | After 9 to 12 minutes, the TC2 saloon HVAC test has passed.                                                                                                                                             |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10098 | I | If the test has not passed, use the maintenance software to check the alarms recorded during testing to help with fault finding.                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10099 | I | Cabin HVAC on TC2                                                                                                                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10100 | I | Use the temperature sensor to verify the temperature of the cabin                                                                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10101 | A | Switch Active cab to TC2                                                                                                                                                                                |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10102 | I | Check the Steps below and compare with Maintenance software                                                                                                                                             |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10103 | A | Select the switch 57S1 to Low-Speed Ventilation                                                                                                                                                         |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10104 | A | Select the switch 57S2 to position 1                                                                                                                                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10105 | R | Temperature is set to 20°C                                                                                                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10106 | A | Select the switch 57S2 to position 2                                                                                                                                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10107 | R | Temperature is set to 22°C                                                                                                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10108 | A | Select the switch 57S2 to position 3                                                                                                                                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10109 | R | Temperature is set to 24°C                                                                                                                                                                              |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10110 | A | Select the switch 57S2 to position 4                                                                                                                                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                         |  |    |   |                               |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10111 | R | Temperature is set to 26°C                                                                                              |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10112 | A | Now select the switch '57S1' to High Ventilation                                                                        |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10113 | A | Select the switch '57S2' to position 1                                                                                  |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10114 | R | Temperature is set to 20°C                                                                                              |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10115 | A | Select the switch '57S2' to position 2                                                                                  |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10116 | R | Temperature is set to 22°C                                                                                              |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10117 | A | Select the switch '57S2' to position 3                                                                                  |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10118 | R | Temperature is set to 24°C                                                                                              |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10119 | A | Select the switch '57S2' to position 4                                                                                  |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10120 | R | Temperature is set to 26°C                                                                                              |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10121 | I | Cabin HVAC Fault on TC2                                                                                                 |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10122 | A | Select the switch '57S1' to OFF position                                                                                |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10123 | A | Trip the Circuit-Breaker F120 to simulate the fault. Located in HVAC Control Panel                                      |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10124 | A | Turn on the cabin HVAC by switch '57S1' and verify on HCU Finder if the operation is according to the selected position |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10125 | R | Operation speed selection is working properly                                                                           |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10126 | A | Select the switch '57S1' to OFF position                                                                                |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10127 | A | Normalize the Circuit Breaker F120                                                                                      |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10128 | A | Turn on the cabin HVAC by switch '57S1' and check its behaviour.                                                        |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10129 | I | Cabin Footrest Heater Test on TC2                                                                                       |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10130 | R | Read Defined Variable [TT] (MPU1)li_hva_tc2footheaterfault__1 = 0.0                                                     |  | OK | 0 | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                    |                                                                                     |    |   |                               |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-------------------------------|-------|
| 10131 | R | Foot Heater is Off                                                                                                 |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10132 | A | Simulate a failure of the heater by opening circuit breaker 57Q2                                                   |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10133 | A | Command '57S3' pushbutton                                                                                          |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10134 | R | Read Defined Variable [TT] (MPU1)li_hva_tc2footheaterfault__1 = 1.0                                                |                                                                                     | OK | 1 | Paseka Ditlhakanyane - 491468 | Train |
| 10135 | R | Foot Heater is Off                                                                                                 |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10136 | A | Release '57S3' pushbutton                                                                                          |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10137 | A | Close 57Q2                                                                                                         |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10138 | A | Command '57S3' pushbutton                                                                                          |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10139 | R | Read Defined Variable [TT] (MPU1)li_hva_tc2footheaterfault__1 = 0.0                                                |                                                                                     | OK | 0 | Paseka Ditlhakanyane - 491468 | Train |
| 10140 | R | Foot Heater is ON                                                                                                  |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10141 | I | Emergency Ventilation Mode                                                                                         |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10142 | R | All HVACs are working in NORMAL condition                                                                          |  | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10143 | A | Switch off the catenary voltage 3kV                                                                                |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10144 | R | Both Auxiliary Converter stop to work                                                                              |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10145 | R | 400 V AC is not present on train                                                                                   |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10146 | R | No high voltage power is available on HVAC unit to operate Ventilation and Cooling or Heating.                     |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10147 | R | All HVAC units and Cab HVAC units stop                                                                             |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10148 | R | After about 45 seconds without 400V, Auxiliary Converter will generate 400V from Train Batteries with an inverter. |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |
| 10149 | R | After this time about (45s) All HVAC units will operate in "Emergency Ventilation"                                 |                                                                                     | OK |   | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                    |  |    |  |                               |       |
|-------|---|--------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
| 10150 | A | Switch on the 3kV on the catenary                                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10151 | R | Now, 400V AC is available by Auxiliary Converter                                                                   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10152 | R | All HVAC units and Cab HVAC units only operate Ventilation with maximum fresh airflow, Air Extractor are switch ON |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10153 | I | End of Test                                                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 13 – Driving Command

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### 13.3 Instructions list

### 13.3.1 030\_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            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | Initial Conditions                                            |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | I    | Train should be prepared with High voltage                    |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | I    | Deadman override switch 60S1 must be in OVERRIDE position     |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | I    | Driving command TC1 side                                      |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10006 | I    | Direction Selector Switch TC1                                 |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10007 | A    | Put the Direction selector switch 30A1.S2 in NEUTRAL position |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10008 | R    | Read Defined Variable [TT] (TBCU1)LI_FORWARD = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10009 | R    | Read Defined Variable [TT] (TBCU2)LI_FORWARD = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10010 | R    | Read Defined Variable [TT] (TBCU3)LI_FORWARD = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10011 | R    | Read Defined Variable [TT] (TBCU4)LI_FORWARD = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10012 | R    | Read Defined Variable [TT] (TBCU1)LI_REVERSE = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10013 | R    | Read Defined Variable [TT] (TBCU2)LI_REVERSE = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10014 | R    | Read Defined Variable [TT] (TBCU3)LI_REVERSE = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10015 | R    | Read Defined Variable [TT] (TBCU4)LI_REVERSE = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10016 | R    | Read Defined Variable [TT] (MPU1)li_drc_tc1dsnozeror1 = 0.0   |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |

|       |   |                                                                  |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10018 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0            |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0            |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0            |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0            |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10029 | A | Put the Direction selector switch 30A1.S2<br>in REVERSE position |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                                 |  |    |   |                               |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10034 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0                           |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0                           |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0                           |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0                           |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsnozeror1 = 1.0                  |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1dsreverser1 = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10040 | I | Reduced Power Test TC1                                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10041 | I | Button Lamp 30S2 is OFF                                                         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10042 | I | Driving mode switch in SPEED CONTROL<br>mode                                    |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0               |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10045 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10046 | R | Button Lamp 30S2 is ON                                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0               |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10049 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10050 | R | Button Lamp 30S2 is OFF                                                         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0              |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                              |  |    |   |                              |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10053 | A | Put the driving mode switch to EFFORT mode                                   |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10054 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 1.0            |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10057 | A | Release the button 30S2 and press it again to de-activate reduced power mode |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 0.0           |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10060 | I | It not possible to activate reduced power in depot or coupling mode          |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10061 | A | Put the driving mode switch to DEPOT mode                                    |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10062 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0           |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10065 | A | Release the button 30S2                                                      |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10066 | A | Put the driving mode switch to COUPLING mode                                 |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10067 | A | Press button 30S2 to activate the reduced power mode and maintain it         |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc1reducedlampr1 = 0.0            |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                             |  |    |   |                               |       |
|-------|---|-----------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1reducedpowerr1 = 1.0          |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10070 | A | Release the button 30S2                                                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10071 | I | Master Controller / No Brake                                                |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10072 | I | The direction selector switch 30A1.S2<br>must be in NEUTRAL position        |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10073 | I | The Master controller of Traction/Brake<br>should be on OFF position        |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10074 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0        |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10075 | I | The Traction Interlock Override Switch<br>31S1 should be in NORMAL position |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10076 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                        |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10077 | R | LED 31H1 is OFF on the alarm module                                         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10078 | R | LED 44H4 is "ON" on the alarm module                                        |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                      |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                      |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                      |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                      |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                        |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                        |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                           |  |    |      |                               |       |
|-------|---|---------------------------------------------------------------------------|--|----|------|-------------------------------|-------|
| 10087 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                     |  | OK | 1    | Siphesihle Mchunu -<br>491465 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                     |  | OK | 1    | Siphesihle Mchunu -<br>491465 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                     |  | OK | 1    | Siphesihle Mchunu -<br>491465 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                     |  | OK | 1    | Siphesihle Mchunu -<br>491465 | Train |
| 10091 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369  |  | OK | 5952 | Siphesihle Mchunu -<br>491465 | Train |
| 10092 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369  |  | OK | 6000 | Siphesihle Mchunu -<br>491465 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0           |  | OK | 0    | Siphesihle Mchunu -<br>491465 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0           |  | OK | 0    | Siphesihle Mchunu -<br>491465 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0             |  | OK | 0    | Siphesihle Mchunu -<br>491465 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0             |  | OK | 0    | Siphesihle Mchunu -<br>491465 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0             |  | OK | 0    | Siphesihle Mchunu -<br>491465 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0             |  | OK | 0    | Siphesihle Mchunu -<br>491465 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0 |  | OK | 0    | Siphesihle Mchunu -<br>491465 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0 |  | OK | 0    | Siphesihle Mchunu -<br>491465 | Train |
| 10101 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position          |  | OK |      | Alleta Sekgololo -<br>417407  | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                      |  | OK | 0    | Alleta Sekgololo -<br>417407  | Train |

|       |   |                                                                          |  |    |      |                           |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|---------------------------|-------|
| 10103 | R | LED 44H4 is OFF on the alarm module                                      |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10104 | R | LED 31H1 is "ON" on the alarm module                                     |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                    |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                    |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10112 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10114 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10117 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5952 | Alleta Sekgololo - 417407 | Train |
| 10118 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 6000 | Alleta Sekgololo - 417407 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mtractionr1 = 0.0          |  | OK | 0    | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                                    |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0                                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0                                      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0                                      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0                                      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0                                      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10125 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0                          |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10126 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0                          |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10127 | I | For safety purposes ENSURE that NO one<br>is working NEAR, OUTSIDE or on the<br>DOORS of the Train |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10128 | A | Press Automatic Start Button to Drop the<br>Pantographs                                            |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10129 | A | Timer 15.0 S                                                                                       |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0                                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0                                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0                                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0                                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10134 | A | Put the Master controller of<br>Traction/Brake in 100% TRACTION<br>position                        |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                                              |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |

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|-------|---|-----------------------------------------------------------------------------|--|----|-------|------------------------------|-------|
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                       |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                      |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10138 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                      |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                      |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                      |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                        |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                        |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                       |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                       |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                       |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                       |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10147 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpoositionch1 :<br>29183<= x <= 31102 |  | OK | 30896 | Alleta Sekgololo -<br>417407 | Train |
| 10148 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpoositionch2 :<br>29183<= x <= 31102 |  | OK | 30944 | Alleta Sekgololo -<br>417407 | Train |
| 10149 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractioNr1 = 1.0            |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractioNr2 = 1.0            |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoCoastR1 = 1.0             |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoCoastR2 = 1.0             |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                           |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0             |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0             |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10157 | A | Put the Master controller of<br>Traction/Brake in OFF position            |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                      |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                      |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                     |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                     |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                     |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                     |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                           |  |    |      |                              |       |
|-------|---|---------------------------------------------------------------------------|--|----|------|------------------------------|-------|
| 10170 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpoitionch1 :<br>5479<= x <= 6369   |  | OK | 5952 | Alleta Sekgololo -<br>417407 | Train |
| 10171 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpoitionch2 :<br>5479<= x <= 6369   |  | OK | 6000 | Alleta Sekgololo -<br>417407 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractio1 = 0.0            |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10173 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractio2 = 0.0            |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 0.0             |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10175 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 0.0             |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 0.0             |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 0.0             |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0 |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10179 | A | Put the direction selector switch in<br>REVERSE position                  |  | OK |      | Alleta Sekgololo -<br>417407 | Train |
| 10180 | A | Put the Master controller of<br>Traction/Brake in 100% BRAKE position     |  | OK |      | Alleta Sekgololo -<br>417407 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                    |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                    |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                            |  |    |       |                              |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|------------------------------|-------|
| 10186 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10193 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30880 | Alleta Sekgololo -<br>417407 | Train |
| 10194 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc1mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30944 | Alleta Sekgololo -<br>417407 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr1 = 0.0            |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0            |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>0.0  |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10202 | R | Read Defined Variable [TT]                                                 |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                         |  |    |       |                           |       |
|-------|---|-------------------------------------------------------------------------|--|----|-------|---------------------------|-------|
|       |   | (MPU1)li_drc_tc1mcemergencybraker2 = 0.0                                |  |    |       |                           |       |
| 10203 | A | Put the Master controller of Traction/Brake in EMERGENCY BRAKE position |  | OK |       | Alleta Sekgololo - 417407 | Train |
| 10204 | R | Read Defined Variable [TT] (BCU1)Li_Traction = 0.0                      |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10205 | R | Read Defined Variable [TT] (BCU2)Li_Traction = 0.0                      |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10206 | R | Read Defined Variable [TT] (TBCU1)LI_TRACTION = 0.0                     |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10207 | R | Read Defined Variable [TT] (TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10208 | R | Read Defined Variable [TT] (TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10209 | R | Read Defined Variable [TT] (TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10210 | R | Read Defined Variable [TT] (BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10211 | R | Read Defined Variable [TT] (BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10212 | R | Read Defined Variable [TT] (TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10213 | R | Read Defined Variable [TT] (TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10214 | R | Read Defined Variable [TT] (TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10215 | R | Read Defined Variable [TT] (TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo - 417407 | Train |
| 10216 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch1 : 29183<= x <= 31102    |  | OK | 30896 | Alleta Sekgololo - 417407 | Train |
| 10217 | R | Read Min/Max [TT] (MPU1)ai_drc_tc1mcpositionch2 : 29183<= x <= 31102    |  | OK | 30944 | Alleta Sekgololo - 417407 | Train |
| 10218 | R | Read Defined Variable [TT] (MPU1)li_drc_tc1mctractior1 = 0.0            |  | OK | 0     | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                           |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mctractonr2 = 0.0           |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr1 = 1.0             |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcnoastr2 = 1.0             |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker1 = 1.0             |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcbraker2 = 1.0             |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker1 =<br>1.0 |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10225 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1mcemergencybraker2 =<br>1.0 |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10226 | I | Driving command TC2 side                                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10227 | I | Direction Selector Switch TC2                                             |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10228 | A | Switch active cab to TC2                                                  |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10229 | A | Press 21S1 to raise the Pantographs                                       |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10230 | A | Press 22S11 to close the HSCB                                             |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10231 | A | Put the Direction selector switch 30A1.S2<br>in NEUTRAL position          |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10236 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                  |  |    |   |                              |       |
|-------|---|------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10237 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0            |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10240 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 0.0            |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 1.0            |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 1.0            |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 0.0            |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 1.0            |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10246 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 0.0            |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 0.0            |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10248 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 1.0            |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10249 | A | Put the Direction selector switch 30A1.S2<br>in REVERSE position |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(TBCU1)LI_FORWARD = 1.0            |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(TBCU2)LI_FORWARD = 0.0            |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(TBCU3)LI_FORWARD = 0.0            |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(TBCU4)LI_FORWARD = 1.0            |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                                 |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10254 | R | Read Defined Variable [TT]<br>(TBCU1)LI_REVERSE = 0.0                           |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(TBCU2)LI_REVERSE = 1.0                           |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(TBCU3)LI_REVERSE = 1.0                           |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(TBCU4)LI_REVERSE = 0.0                           |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10258 | A | Put Master Controller in OFF position                                           |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10259 | I | Button Lamp 30S2 is OFF                                                         |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10260 | I | Reduced Power Test TC2                                                          |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10261 | A | Put the driving mode switch in SPEED<br>CONTROL mode                            |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10262 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlamp1 = 1.0                |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10265 | R | Button Lamp 30S2 is ON                                                          |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10266 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10267 | R | Button Lamp 30S2 is OFF                                                         |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 0.0              |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlamp1 = 0.0                |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10270 | A | Put the driving mode switch to EFFORT<br>mode                                   |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10271 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                                 |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10273 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 1.0               |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10274 | A | Release the button 30S2 and press it<br>again to de-activate reduced power mode |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10275 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10276 | I | It not possible to activate reduced power<br>in depot or coupling mode          |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10277 | A | Put the driving mode switch to DEPOT<br>mode                                    |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10278 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10281 | A | Release the button 30S2                                                         |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10282 | A | Put the driving mode switch to COUPLING<br>mode                                 |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10283 | A | Press button 30S2 to activate the reduced<br>power mode and maintain it         |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2reducedpowerr1 = 1.0              |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)lo_drc_tc2reducedlampr1 = 0.0               |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10286 | A | Release the button 30S2                                                         |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10287 | I | Master Controller/ No Brake                                                     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10288 | I | The direction selector switch 30A1.S2<br>must be in NEUTRAL position            |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10289 | I | The Master controller of Traction/Brake<br>should be on OFF position            |  | OK |   | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                          |  |    |      |                           |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|---------------------------|-------|
| 10290 | I | Emergency Brake must be applied                                          |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10291 | I | All doors should be closed                                               |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10292 | I | The Traction Interlock Override Switch 31S1 should be in NORMAL position |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10293 | R | LED 31H1 is OFF on the alarm module                                      |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10294 | R | LED 44H4 is "ON" on the alarm module                                     |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                    |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                    |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10300 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10307 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5920 | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                           |  |    |      |                              |       |
|-------|---|---------------------------------------------------------------------------|--|----|------|------------------------------|-------|
| 10308 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369  |  | OK | 6032 | Alleta Sekgololo -<br>417407 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractioanr1 = 0.0         |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractioanr2 = 0.0         |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10311 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0             |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10312 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0             |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10313 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0             |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0             |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0 |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0 |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10317 | A | Put the Direction selector switch 30A1.S2<br>in FORWARD position          |  | OK |      | Alleta Sekgololo -<br>417407 | Train |
| 10318 | I | No emergency brake is applied                                             |  | OK |      | Alleta Sekgololo -<br>417407 | Train |
| 10319 | R | LED 44H4 is OFF on the alarm module                                       |  | OK |      | Alleta Sekgololo -<br>417407 | Train |
| 10320 | R | LED 31H1 is "ON" on the alarm module                                      |  | OK |      | Alleta Sekgololo -<br>417407 | Train |
| 10321 | R | Relay 31K1 and 31K2 are energized                                         |  | OK |      | Alleta Sekgololo -<br>417407 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10324 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                          |  |    |      |                              |       |
|-------|---|--------------------------------------------------------------------------|--|----|------|------------------------------|-------|
| 10325 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10326 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                   |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                     |  | OK | 1    | Alleta Sekgololo -<br>417407 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                     |  | OK | 1    | Alleta Sekgololo -<br>417407 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo -<br>417407 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo -<br>417407 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo -<br>417407 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                    |  | OK | 1    | Alleta Sekgololo -<br>417407 | Train |
| 10334 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>5479<= x <= 6369 |  | OK | 5920 | Alleta Sekgololo -<br>417407 | Train |
| 10335 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>5479<= x <= 6369 |  | OK | 6032 | Alleta Sekgololo -<br>417407 | Train |
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0          |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10337 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0          |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0            |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0            |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0            |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0            |  | OK | 0    | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                                              |  |    |   |                           |       |
|-------|---|----------------------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 = 0.0                       |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 = 0.0                       |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10344 | I | For safety purposes ENSURE that NO one is working NEAR, OUTSIDE or on the DOORS of the Train |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10345 | A | Press Automatic Start Button to Drop the Pantographs                                         |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10346 | A | Timer 15.0 S                                                                                 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr1 = 0.0                              |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m1pantorisedr2 = 0.0                              |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10349 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr1 = 0.0                              |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)li_pnt_m2pantorisedr2 = 0.0                              |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10351 | A | Put the Master controller of Traction/Brake in 100% TRACTION position                        |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 1.0                                        |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10353 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 1.0                                        |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 1.0                                       |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 1.0                                       |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 1.0                                       |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 1.0                                       |  | OK | 1 | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                            |  |    |       |                              |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|------------------------------|-------|
| 10358 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 1.0                       |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 1.0                       |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10360 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 1.0                      |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10361 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 1.0                      |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10362 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 1.0                      |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 1.0                      |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10364 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30752 | Alleta Sekgololo -<br>417407 | Train |
| 10365 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30976 | Alleta Sekgololo -<br>417407 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 1.0            |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 1.0            |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0              |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0              |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10372 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0  |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10373 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0  |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                      |  |    |      |                           |       |
|-------|---|----------------------------------------------------------------------|--|----|------|---------------------------|-------|
| 10374 | A | Put the Master controller of Traction/Brake in OFF position          |  | OK |      | Alleta Sekgololo - 417407 | Train |
| 10375 | R | Read Defined Variable [TT] (BCU1) Li_Traction = 0.0                  |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10376 | R | Read Defined Variable [TT] (BCU2) Li_Traction = 0.0                  |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10377 | R | Read Defined Variable [TT] (TBCU1) Li_TRACTION = 0.0                 |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10378 | R | Read Defined Variable [TT] (TBCU2) Li_TRACTION = 0.0                 |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10379 | R | Read Defined Variable [TT] (TBCU3) Li_TRACTION = 0.0                 |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10380 | R | Read Defined Variable [TT] (TBCU4) Li_TRACTION = 0.0                 |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10381 | R | Read Defined Variable [TT] (BCU1) Li_noBrake = 1.0                   |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10382 | R | Read Defined Variable [TT] (BCU2) Li_noBrake = 1.0                   |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10383 | R | Read Defined Variable [TT] (TBCU1) Li_NOBRAKE = 1.0                  |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10384 | R | Read Defined Variable [TT] (TBCU2) Li_NOBRAKE = 1.0                  |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10385 | R | Read Defined Variable [TT] (TBCU3) Li_NOBRAKE = 1.0                  |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10386 | R | Read Defined Variable [TT] (TBCU4) Li_NOBRAKE = 1.0                  |  | OK | 1    | Alleta Sekgololo - 417407 | Train |
| 10387 | R | Read Min/Max [TT] (MPU1) ai_drc_tc2mcpoositionch1 : 5479<= x <= 6369 |  | OK | 5920 | Alleta Sekgololo - 417407 | Train |
| 10388 | R | Read Min/Max [TT] (MPU1) ai_drc_tc2mcpoositionch2 : 5479<= x <= 6369 |  | OK | 6032 | Alleta Sekgololo - 417407 | Train |
| 10389 | R | Read Defined Variable [TT] (MPU1) li_drc_tc2mctractio nr1 = 0.0      |  | OK | 0    | Alleta Sekgololo - 417407 | Train |
| 10390 | R | Read Defined Variable [TT] (MPU1) li_drc_tc2mctractio nr2 = 0.0      |  | OK | 0    | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                           |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 0.0             |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 0.0             |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 0.0             |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 0.0             |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0 |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10397 | A | Put the Master controller of<br>Traction/Brake in 100% BRAKE position     |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10398 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                    |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10405 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                      |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                     |  | OK | 0 | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                               |  |    |       |                              |       |
|-------|---|-------------------------------------------------------------------------------|--|----|-------|------------------------------|-------|
| 10408 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                         |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10409 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                         |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10410 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102    |  | OK | 30640 | Alleta Sekgololo -<br>417407 | Train |
| 10411 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102    |  | OK | 30976 | Alleta Sekgololo -<br>417407 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0               |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0               |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0                 |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0                 |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0                 |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0                 |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>0.0     |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>0.0     |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10420 | A | Put the Master controller of<br>Traction/Brake in EMERGENCY BRAKE<br>position |  | OK |       | Alleta Sekgololo -<br>417407 | Train |
| 10421 | R | Read Defined Variable [TT]<br>(BCU1)Li_Traction = 0.0                         |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10422 | R | Read Defined Variable [TT]<br>(BCU2)Li_Traction = 0.0                         |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10423 | R | Read Defined Variable [TT]<br>(TBCU1)LI_TRACTION = 0.0                        |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                            |  |    |       |                              |       |
|-------|---|----------------------------------------------------------------------------|--|----|-------|------------------------------|-------|
| 10424 | R | Read Defined Variable [TT]<br>(TBCU2)LI_TRACTION = 0.0                     |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10425 | R | Read Defined Variable [TT]<br>(TBCU3)LI_TRACTION = 0.0                     |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10426 | R | Read Defined Variable [TT]<br>(TBCU4)LI_TRACTION = 0.0                     |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10427 | R | Read Defined Variable [TT]<br>(BCU1)Li_noBrake = 0.0                       |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10428 | R | Read Defined Variable [TT]<br>(BCU2)Li_noBrake = 0.0                       |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10429 | R | Read Defined Variable [TT]<br>(TBCU1)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10430 | R | Read Defined Variable [TT]<br>(TBCU2)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10431 | R | Read Defined Variable [TT]<br>(TBCU3)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10432 | R | Read Defined Variable [TT]<br>(TBCU4)LI_NOBRAKE = 0.0                      |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10433 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch1 :<br>29183<= x <= 31102 |  | OK | 30752 | Alleta Sekgololo -<br>417407 | Train |
| 10434 | R | Read Min/Max [TT]<br>(MPU1)ai_drc_tc2mcpositionch2 :<br>29183<= x <= 31102 |  | OK | 30976 | Alleta Sekgololo -<br>417407 | Train |
| 10435 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr1 = 0.0            |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10436 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mctractonr2 = 0.0            |  | OK | 0     | Alleta Sekgololo -<br>417407 | Train |
| 10437 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr1 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10438 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcnoastr2 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10439 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker1 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |
| 10440 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcbraker2 = 1.0              |  | OK | 1     | Alleta Sekgololo -<br>417407 | Train |

|       |   |                                                                           |  |    |   |                              |       |
|-------|---|---------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10441 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker1 =<br>1.0 |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10442 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2mcemergencybraker2 =<br>1.0 |  | OK | 1 | Alleta Sekgololo -<br>417407 | Train |
| 10443 | A | Put the Master controller of<br>Traction/Brake in OFF position            |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10444 | A | Put the direction switch to NEUTRAL<br>position                           |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10445 | A | Close HSCB using button 22S11                                             |  | OK |   | Alleta Sekgololo -<br>417407 | Train |
| 10446 | I | End of Test                                                               |  | OK |   | Alleta Sekgololo -<br>417407 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 14 – Holding and Parking Brake

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### 14.3 Instructions list

### 14.3.1 045\_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            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | Initial Conditions                                                                       |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | I    | Train must be properly scotched with sufficient scotch blocked to prevent it from moving |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | I    | Automatic parking brake application                                                      |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | I    | Train in LV ready with active cab on TC1                                                 |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10006 | A    | Release parking brake using the switch 45S1                                              |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10007 | R    | Verify on the DDU that all cars have parking brake released                              |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10008 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                         |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10009 | A    | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                         |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10010 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                         |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10011 | A    | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                         |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10012 | A    | Drain the air from the main pipe until it reaches 0bar                                   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10013 | R    | Main pipe pressure is 0bar on the Pneumatic indicator                                    |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10014 | R    | Verify on the DDU that all cars have parking brake applied                               |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10015 | R    | Lamp 45H2 is "ON" on the alarm module                                                    |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                         |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |

|       |   |                                                                   |  |    |   |                               |       |
|-------|---|-------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1__parkbrakerelease = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakerelease = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)BCU2__ParkBrakeRelease = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakerelease = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakerelease = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1__li__pbrake__stat = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2__li__pbrake__stat = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__li__pbrake__stat = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__li__pbrake__stat = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2__ParkBrakeIsolDC = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1__parkbrakeisoldc = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2__parkbrakeisoldc = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakeisoldc = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakeisoldc = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakeisoldc = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(BCU1)LI__PARK__BR__DC = 0.0        |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(BCU2)LI__PARK__BR__DC = 0.0        |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                                               |  |    |   |                               |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10034 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_RELEASE = 0.0                                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                      |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10038 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10039 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2                                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10040 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10041 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2                                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10042 | A | Press the automatic start button 20S1                                                         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc1compenabler1 = 1.0                              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)lo_air_tc2compenabler1 = 1.0                              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10045 | R | After 10 minutes, the air in the main pipe<br>is 10bar +/-0.2bar                              |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10046 | A | Turn the switch 45S1 to release parking<br>brake                                              |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10047 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10048 | I | Parking brake is released in all cars                                                         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10049 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10050 | R | On the Driver's event list, there is no<br>message reporting parking brake release<br>failure |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                   |  |    |   |                               |       |
|-------|---|-------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1__parkbrakerelease = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakerelease = 1.0  |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)BCU2__ParkBrakeRelease = 1.0  |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakerelease = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakerelease = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1__li__pbrake_stat = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2__li__pbrake_stat = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__li__pbrake_stat = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__li__pbrake_stat = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)BCU2__ParkBrakeIsolDC = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1__parkbrakeisoldc = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10063 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2__parkbrakeisoldc = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakeisoldc = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakeisoldc = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakeisoldc = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(BCU1)LI__PARK_BR_DC = 0.0          |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(BCU2)LI__PARK_BR_DC = 0.0          |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                                                                           |  |    |       |                              |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|-------|------------------------------|-------|
| 10069 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0                                                                  |  | OK | 0     | Siphehile Mchunu -<br>491465 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                                                  |  | OK | 0     | Siphehile Mchunu -<br>491465 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                                                  |  | OK | 0     | Siphehile Mchunu -<br>491465 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                                                  |  | OK | 0     | Siphehile Mchunu -<br>491465 | Train |
| 10073 | I | Remote parking brake application TC1                                                                                      |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10074 | A | Turn the switch 45S1 to parking brake<br>release                                                                          |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10075 | R | Lamp 45H2 is OFF on the alarm module                                                                                      |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10076 | R | Measure the pressure of the test point<br>C1.11 on TC1, test point must be set to 6<br>bar<br>Read Undefined Value : x () |  | OK | 6.01  | Siphehile Mchunu -<br>491465 | Train |
| 10077 | R | Measure the pressure of the test point<br>C2.11 on M4, test point must be set to 6<br>bar<br>Read Undefined Value : x ()  |  | OK | 6.073 | Siphehile Mchunu -<br>491465 | Train |
| 10078 | R | Measure the pressure of the test point<br>C2.11 on M1, test point must be set to 6<br>bar<br>Read Undefined Value : x ()  |  | OK | 5.974 | Siphehile Mchunu -<br>491465 | Train |
| 10079 | R | Measure the pressure of the test point<br>C2.11 on M2, test point must be set to 6<br>bar<br>Read Undefined Value : x ()  |  | OK | 5.901 | Siphehile Mchunu -<br>491465 | Train |
| 10080 | R | Measure the pressure of the test point<br>C2.11 on M3, test point must be set to 6<br>bar<br>Read Undefined Value : x ()  |  | OK | 5.932 | Siphehile Mchunu -<br>491465 | Train |
| 10081 | R | Measure the pressure of the test point<br>C1.11 on TC2, test point must be set to 6<br>bar<br>Read Undefined Value : x () |  | OK | 5.958 | Siphehile Mchunu -<br>491465 | Train |
| 10082 | A | Turn the switch 45S1 to apply parking<br>brake                                                                            |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10083 | R | Lamp 45H2 is ON on the alarm module                                                                                       |  | OK |       | Siphehile Mchunu -<br>491465 | Train |
| 10084 | R | Measure the pressure of the test point<br>C1.11 on TC1, test point must below 4.8<br>bar<br>Result Max : x <= 5 (Bar)     |  | OK | 1.655 | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                                                                 |  |    |       |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------|--|----|-------|----------------------------|-------|
| 10085 | R | Measure the pressure of the test point C1.11 on M4, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)  |  | OK | 1.951 | Siphesihle Mchunu - 491465 | 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 | 1.884 | Siphesihle Mchunu - 491465 | 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 | 1.842 | Siphesihle Mchunu - 491465 | Train |
| 10088 | R | Measure the pressure of the test point C2.11 on M3, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar)  |  | OK | 1.754 | Siphesihle Mchunu - 491465 | Train |
| 10089 | R | Measure the pressure of the test point C1.11 on TC2, test point must below 4.8 bar<br>Result Max : x <= 5 (Bar) |  | OK | 1.892 | Siphesihle Mchunu - 491465 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                                                |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0                                                |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0                                                 |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0                                                 |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0                                                |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0                                                |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0                                                  |  | OK | 1     | Siphesihle Mchunu - 491465 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0                                                  |  | OK | 1     | Siphesihle Mchunu - 491465 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0                                                  |  | OK | 1     | Siphesihle Mchunu - 491465 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0                                                  |  | OK | 1     | Siphesihle Mchunu - 491465 | Train |
| 10100 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 0.0                                                  |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                   |  |    |   |                              |       |
|-------|---|-------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0   |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0   |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0    |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0   |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0   |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 0.0           |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10107 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0           |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0          |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10112 | I | Parking brake manual isolation                                    |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10113 | I | TC1                                                               |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10114 | A | Put the switch C1.3.2 in ISOLATION<br>position on TC1             |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_RELEASE = 0.0      |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc1parkbrakeisol = 1.0 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 1.0    |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(BCU1)LI_PARK_BR_DC = 1.0           |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                                                                             |  |    |   |                            |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10119 | A | Put the switch C1.3.2 in NORMAL position on TC1                                                                             |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10120 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_RELEASE = 0.0                                                                   |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10121 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working) |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10122 | R | Read Defined Variable [TT] (MPU1)li_pbk_tc1parkbrakeisol = 0.0                                                              |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10123 | R | Read Defined Variable [TT] (MPU1)bcu1_parkbrakeisoldc = 0.0                                                                 |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10124 | R | Read Defined Variable [TT] (BCU1)LI_PARK_BR_DC = 0.0                                                                        |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10125 | I | M4                                                                                                                          |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10126 | A | Put the switch C2.3.2 for in ISOLATION position                                                                             |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10127 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_RELEASE = 0.0                                                                  |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10128 | R | Read Defined Variable [TT] (MPU1)li_pbk_m4parkbrakeisol = 1.0                                                               |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10129 | R | Read Defined Variable [TT] (MPU1)tbcu4_parkbrakeisoldc = 1.0                                                                |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10130 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_DC = 1.0                                                                       |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10131 | A | Put the switch C2.3.2 in NORMAL position on M4                                                                              |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10132 | R | Read Defined Variable [TT] (TBCU4)LI_PARK_BR_RELEASE = 0.0                                                                  |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10133 | R | Verify on the DDU that parking brake is still released                                                                      |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10134 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working) |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10135 | R | Read Defined Variable [TT] (MPU1)li_pbk_m4parkbrakeisol = 0.0                                                               |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                                                                                  |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10137 | R | Read Defined Variable [TT]<br>(TBCU4)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10138 | I | M1                                                                                                                               |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10139 | A | Put the switch C2.3.2 for in ISOLATION<br>position                                                                               |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 1.0                                                                 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10142 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10143 | A | Put the switch C2.3.2 in NORMAL<br>position on M1                                                                                |  | OK |   | Siphehile Mchunu -<br>491465 | 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 |   | Siphehile Mchunu -<br>491465 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m1parkbrakeisol = 0.0                                                                 |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0                                                                  |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(TBCU1)LI_PARK_BR_DC = 0.0                                                                         |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10148 | I | M2                                                                                                                               |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10149 | A | Put the switch C2.3.2 in ISOLATION<br>position on M2                                                                             |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10150 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 1.0                                                                 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 1.0                                                                  |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 1.0                                                                         |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                                                                            |  |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10153 | A | Put the cock C2.3.2 for in NORMAL position on M2                                                                           |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10154 | A | Pull the parking brake manual lever of both bogies( a click sound must be heard to indicate parking brake lever is working |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m2parkbrakeisol = 0.0                                                           |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0                                                            |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(TBCU2)LI_PARK_BR_DC = 0.0                                                                   |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10158 | I | M3                                                                                                                         |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10159 | A | Put the switch C2.3.2 in ISOLATION position on M3                                                                          |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m3parkbrakeisol = 1.0                                                           |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10161 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 1.0                                                            |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 1.0                                                                   |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10163 | A | Put the cock C2.3.2 for in NORMAL position on M3                                                                           |  | OK |   | Siphesihle Mchunu - 491465 | 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 |   | Siphesihle Mchunu - 491465 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_m3parkbrakeisol = 0.0                                                           |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0                                                            |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10167 | I | TC2                                                                                                                        |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10168 | A | Put the switch C1.3.2 in ISOLATION position on TC2                                                                         |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(TBCU3)LI_PARK_BR_DC = 0.0                                                                   |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                                                                                   |  |    |       |                               |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------|--|----|-------|-------------------------------|-------|
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 1.0                                                                    |  | OK | 1     | Siphesihle Mchunu -<br>491465 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc2parkbrakeisol = 1.0                                                                 |  | OK | 1     | Siphesihle Mchunu -<br>491465 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 1.0                                                                           |  | OK | 1     | Siphesihle Mchunu -<br>491465 | Train |
| 10173 | A | Put the switch C1.3.2 in NORMAL<br>position on TC2                                                                                |  | OK |       | Siphesihle Mchunu -<br>491465 | Train |
| 10174 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_RELEASE = 0.0                                                                      |  | OK | 0     | Siphesihle Mchunu -<br>491465 | Train |
| 10175 | 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 |       | Siphesihle Mchunu -<br>491465 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 0.0                                                                    |  | OK | 0     | Siphesihle Mchunu -<br>491465 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)li_pbk_tc2parkbrakeisol = 0.0                                                                 |  | OK | 0     | Siphesihle Mchunu -<br>491465 | Train |
| 10178 | I | Remote parking brake application TC2                                                                                              |  | OK |       | Siphesihle Mchunu -<br>491465 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(BCU2)LI_PARK_BR_DC = 0.0                                                                           |  | OK | 0     | Siphesihle Mchunu -<br>491465 | Train |
| 10180 | A | Switch active cab to TC2                                                                                                          |  | OK |       | Siphesihle Mchunu -<br>491465 | Train |
| 10181 | A | Turn the switch 45S1 to apply parking<br>brake                                                                                    |  | OK |       | Siphesihle Mchunu -<br>491465 | Train |
| 10182 | R | Lamp 45H2 is ON on the alarm module                                                                                               |  | OK |       | Siphesihle Mchunu -<br>491465 | Train |
| 10183 | R | Measure the pressure of the test point<br>C1.11 on TC1, test point must be set to<br>4.8 bar<br>Read Undefined Value : x (Bar)    |  | OK | 1.631 | Siphesihle Mchunu -<br>491465 | Train |
| 10184 | R | Measure the pressure of the test point<br>C2.11 on M4, test point must be set to 4.8<br>bar<br>Read Undefined Value : x (Bar)     |  | OK | 1.963 | Siphesihle Mchunu -<br>491465 | Train |
| 10185 | R | Measure the pressure of the test point<br>C2.11 on M1, test point must be set to 4.8<br>bar<br>Read Undefined Value : x (Bar)     |  | OK | 1.991 | Siphesihle Mchunu -<br>491465 | Train |
| 10186 | R | Measure the pressure of the test point<br>C2.11 on M2, test point must be set to 4.8<br>bar<br>Read Undefined Value : x (Bar)     |  | OK | 2.114 | Siphesihle Mchunu -<br>491465 | 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 | 1.914 | Siphesihle Mchunu - 491465 | 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 | 1.701 | Siphesihle Mchunu - 491465 | Train |
| 10189 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 0.0                                                         |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10190 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 0.0                                                         |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 0.0                                                          |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 0.0                                                          |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 0.0                                                         |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 0.0                                                         |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Siphesihle Mchunu - 491465 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Siphesihle Mchunu - 491465 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Siphesihle Mchunu - 491465 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 1.0                                                           |  | OK | 1     | Siphesihle Mchunu - 491465 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeIsOldC = 0.0                                                           |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0                                                          |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0                                                          |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakeisoldc = 0.0                                                           |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakeisoldc = 0.0                                                          |  | OK | 0     | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                                               |  |    |   |                               |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakeisoldc = 0.0                               |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10205 | A | Turn the switch 45S1 to release parking<br>brake                                              |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10206 | R | Lamp 45H2 is OFF on the alarm module                                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10207 | I | Parking brake is released in all cars                                                         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10208 | R | On the Driver's event list, there is no<br>message reporting parking brake release<br>failure |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakerelease = 1.0                              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakerelease = 1.0                              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_parkbrakerelease = 1.0                               |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10212 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakeRelease = 1.0                               |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_parkbrakerelease = 1.0                              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_parkbrakerelease = 1.0                              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10215 | R | Read Defined Variable [TT]<br>(MPU1)tbcu1_li_pbrake_stat = 0.0                                |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10216 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_li_pbrake_stat = 0.0                                |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10217 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_li_pbrake_stat = 0.0                                |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_li_pbrake_stat = 0.0                                |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_ParkBrakelsolDC = 0.0                                |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10220 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_parkbrakeisoldc = 0.0                               |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_parkbrakeisoldc = 0.0                               |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                  |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)bcu1__parkbrakeisoldc = 0.0  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10223 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3__parkbrakeisoldc = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10224 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4__parkbrakeisoldc = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10225 | I | End of Test                                                      |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 15 – Service Brake

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### 15.3 Instructions list

### 15.3.1 040\_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            |              | Amanda Ntuli - 526239 | 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 | 1.27 | 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 | 1.39 | 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 | 1.32 | 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 | 1.35 | 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 | 1.29   | 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 | 1.27   | 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 | 132.18 | Amanda Ntuli - 526239 | Train |
| 10040 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuBPipePress : 127<= x <= 167                                                               |  | OK | 131.16 | Amanda Ntuli - 526239 | Train |
| 10041 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcubpipepress : 129<= x <= 169                                                              |  | OK | 141.11 | Amanda Ntuli - 526239 | Train |
| 10042 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcubpipepress : 129<= x <= 169                                                              |  | OK | 142.32 | Amanda Ntuli - 526239 | Train |
| 10043 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcubpipepress : 129<= x <= 169                                                              |  | OK | 147.7  | Amanda Ntuli - 526239 | Train |
| 10044 | R | Read Min/Max [TT]<br>(MPU1)tbcu4_bcubpipepress : 129<= x <= 169                                                              |  | OK | 140.57 | 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 | 0.1 | Amanda Ntuli - 526239 | Train |
| 10054 | R | Check the pressure on the brake pressure gauge on TC2<br>Read Undefined Value : x ()                                                                                                                 |  | OK | 0.1 | 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 | 0.1 | Amanda Ntuli - 526239 | Train |
| 10059 | R | Pressure on SBTP (all M cars) = 0bar (+/- 0,2bar)<br>Read Undefined Value : x ()                                                                                                                     |  | OK | 0.2 | Amanda Ntuli - 526239 | Train |
| 10060 | R | Pressure on BCTP (all M cars) = 0bar (+/- 0,2bar)<br>Read Undefined Value : x ()                                                                                                                     |  | OK | 0.1 | 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 |

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|-------|---|-------------------------------------------------------------|--|----|---|-----------------------|-------|
| 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 |

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|-------|---|-------------------------------------------------------------|--|----|---|-----------------------|-------|
| 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<br>DEPOT position  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10124 | A | Position the master controller on 100%<br>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 |

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|-------|---|-----------------------------------------------------------------|--|----|---|-----------------------|-------|
| 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 COUPLE / WASH position   |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10151 | A | Position the master controller in 100% 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 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 reaches +/- 0.2 bar  |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10159 | R | Brake discs are not in contact with wheels 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_ServBrakeisoldc = 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 |

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|-------|---|--------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 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 increases slowly (brake reservoir) until service brake pressure in TC1 until it reaches 1,47bar (+/-0,2bar) |  | OK |   | Amanda Ntuli - 526239 | Train |
| 10188 | R | Brake discs are in contact with wheels on 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 |

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|-------|---|-------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 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_ServBrakeisoldc = 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 |

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|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 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 40H2 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_ServBrakeIsolDC = 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 |

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|-------|---|--------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 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 |

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|-------|---|-------------------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 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 0bar (+/-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_ServBrakeIsolDC = 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 |
| 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 |
| 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 0bar (+/-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_ServBrakeIsolDC = 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 |
| 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 |
| 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 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 |

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|-------|---|----------------------------------------------------------------------------------------------------------------------------|--|----|---|-----------------------|-------|
| 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 |

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|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 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<br>test on test screen and perform the<br>actions shown on DDU.                                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10488 | I | To request the WSP test, go to test screen<br>and request the brake test. Perform the<br>Parking brake test. After the parking brake<br>test, the WSP test will be available. |  | OK |   | Celiwe Sokhela -<br>491462 | 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 |

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|-------|---|-----------------------------------------------------------------------------------|--|----|--|-------------------------|-------|
| 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 detection (41H1) on the alarm module is 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 detection (41H1) on the alarm module is 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 detection (41H1) on the alarm module is 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 |  | Celiwe Sokhela - 491462 | Train |

### 15.3.2 040\_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            |              | Nqobile Chirwa - 484648 | Train   |
| 10002 | I    | Initial Conditions                                                                         |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10003 | I    | Car suspension is not isolated in all cars                                                 |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10004 | I    | Air in main pipe is 10 bar                                                                 |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10005 | I    | TC1                                                                                        |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10006 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 7.061        | Nqobile Chirwa - 484648 | Train   |
| 10007 | R    | Read Min/Max [TT]<br>(MPU1)bcu1_bcususppress : 311<= x <= 371                              |      | OK            | 312.89       | Nqobile Chirwa - 484648 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspisodc = 0.0                                   |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |
| 10009 | A    | Close the isolation cock C1.10                                                             |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_suspisodc = 1.0                                   |      | OK            | 1            | Nqobile Chirwa - 484648 | Train   |
| 10011 | R    | Check Pressure on test point C1.11.2 = 0bar<br>Read Undefined Value : x ()                 |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |
| 10012 | A    | Open the isolation cock C1.10                                                              |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10013 | A    | Check all test point covers have been put back in place in the brake panel and suspension. |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10014 | I    | M4                                                                                         |      | OK            |              | Nqobile Chirwa - 484648 | Train   |
| 10015 | R    | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |      | OK            | 7.211        | Nqobile Chirwa - 484648 | Train   |
| 10016 | R    | Read Min/Max [TT]<br>(MPU1)tbcu4_bcususppress : 260<= x <= 320                             |      | OK            | 270.93       | Nqobile Chirwa - 484648 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspisodc = 0.0                                  |      | OK            | 0            | Nqobile Chirwa - 484648 | Train   |

|       |   |                                                                                            |  |    |        |                         |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--------|-------------------------|-------|
| 10018 | A | Close the isolation cock C2.10                                                             |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10019 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_suspsodc = 1.0                                   |  | OK | 1      | Nqobile Chirwa - 484648 | Train |
| 10021 | A | Open the isolation cock C2.10                                                              |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10022 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10023 | I | M1                                                                                         |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10024 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 7.06   | Nqobile Chirwa - 484648 | Train |
| 10025 | R | Read Min/Max [TT]<br>(MPU1)TBCU1_bcususppress : 271<= x <= 331                             |  | OK | 276.78 | Nqobile Chirwa - 484648 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 0.0                                   |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10027 | A | Close the isolation cock C2.10                                                             |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10028 | R | Check Pressure on test point C2.11.2 = Obar<br>Read Undefined Value : x ()                 |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_suspsodc = 1.0                                   |  | OK | 1      | Nqobile Chirwa - 484648 | Train |
| 10030 | A | Open the isolation cock C2.10                                                              |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10031 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10032 | I | M2                                                                                         |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10033 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 7.24   | Nqobile Chirwa - 484648 | Train |
| 10034 | R | Read Min/Max [TT]<br>(MPU1)tbcu2_bcususppress : 271<= x <= 331                             |  | OK | 292.15 | Nqobile Chirwa - 484648 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 0.0                                   |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10036 | A | Close the isolation cock C2.10                                                             |  | OK |        | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                            |  |    |        |                         |       |
|-------|---|--------------------------------------------------------------------------------------------|--|----|--------|-------------------------|-------|
| 10037 | R | Check Pressure on test point C2.11.2 = 0bar<br>Read Undefined Value : x ()                 |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_suspsodc = 1.0                                   |  | OK | 1      | Nqobile Chirwa - 484648 | Train |
| 10039 | A | Open the isolation cock C2.10                                                              |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10040 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10041 | I | M3                                                                                         |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10042 | A | Check the pressure on test point LPTP.                                                     |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10043 | R | LPTP                                                                                       |  | OK | 6.24   | Nqobile Chirwa - 484648 | Train |
| 10044 | R | Read Min/Max [TT]<br>(MPU1)tbcu3_bcususppress : 260<= x <= 320                             |  | OK | 273.29 | Nqobile Chirwa - 484648 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 0.0                                   |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10046 | A | Close the isolation cock C2.10                                                             |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10047 | R | Check Pressure on test point C2.11.2 = 0bar<br>Read Undefined Value : x ()                 |  | OK | 0      | Nqobile Chirwa - 484648 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_suspsodc = 1.0                                   |  | OK | 1      | Nqobile Chirwa - 484648 | Train |
| 10049 | A | Open the isolation cock C2.10                                                              |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10050 | A | Check all test point covers have been put back in place in the brake panel and suspension. |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10051 | I | TC2                                                                                        |  | OK |        | Nqobile Chirwa - 484648 | Train |
| 10052 | R | Check the pressure on test point LPTP.<br>Read Undefined Value : x ()                      |  | OK | 7.11   | Nqobile Chirwa - 484648 | Train |
| 10053 | R | Read Min/Max [TT]<br>(MPU1)BCU2_BcuSuspPress : 311<= x <= 371                              |  | OK | 330.11 | Nqobile Chirwa - 484648 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SuspIsoDC = 0.0                                   |  | OK | 0      | Nqobile Chirwa - 484648 | Train |

|       |   |                                                                                                  |  |    |   |                            |       |
|-------|---|--------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10055 | A | Close the isolation cock C1.10                                                                   |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_SusplsoDC = 1.0                                         |  | OK | 1 | Nqobile Chirwa -<br>484648 | Train |
| 10057 | R | Check Pressure on test point C1.11.2 =<br>Obar<br>Read Undefined Value : x ()                    |  | OK | 0 | Nqobile Chirwa -<br>484648 | Train |
| 10058 | A | Open the isolation cock C1.10                                                                    |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10059 | A | Check all test point covers have been put<br>back in place in the brake panel and<br>suspension. |  | OK |   | Nqobile Chirwa -<br>484648 | Train |
| 10060 | I | End of Test                                                                                      |  | OK |   | Nqobile Chirwa -<br>484648 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 16 – Emergency Brake Interlock

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### 16.3 Instructions list

### 16.3.1 044\_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            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Emergency Brake Cylinder Pressure                                              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Pressure in the main pipe should be 10 bar +/- 0.2bar                          |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | The direction selector switch is in Neutral position                           |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | Emergency brake is applied                                                     |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | A    | Measure the pressure of the BCTP point in all cars with a calibrated manometer |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | R    | BCTP TC1<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 162          | Celiwe Sokhela - 491462 | Train   |
| 10008 | R    | BCTP M4<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 195.1        | Celiwe Sokhela - 491462 | Train   |
| 10009 | R    | BCTP M1<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 202          | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | BCTP M2<br>Result Min/Max : 192<= x <= 232 (kPa)                               |      | OK            | 210          | Celiwe Sokhela - 491462 | Train   |
| 10011 | R    | BCTP M3<br>Result Min/Max : 187<= x <= 227 (kPa)                               |      | OK            | 198          | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | BCTP TC2<br>Result Min/Max : 157<= x <= 197 (kPa)                              |      | OK            | 173.1        | Celiwe Sokhela - 491462 | Train   |
| 10013 | I    | Emergency brake TC1                                                            |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | I    | Emergency brake by Direction Switch TC1                                        |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10015 | I    | Direction selector switch is in NEUTRAL position                               |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | A    | Active cab on TC1                                                              |      | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10017 | R    | Read Defined Variable [TT]<br>UBK_EmgcyBrkApd = 1.0                            |      | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10018 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                           |      | OK            | 0            | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                          |  |    |   |                            |       |
|-------|---|----------------------------------------------------------|--|----|---|----------------------------|-------|
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10024 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10025 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINb = 1.0      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10032 | A | Put the direction selector switch in<br>REVERSE position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10033 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINb = 1.0      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 1.0      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                           |  |    |   |                            |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tlnb = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tlnb = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnb = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnb = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10040 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10041 | I | Emergency Brake Button TC1                                                                                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10042 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10043 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10044 | A | Apply emergency brake using the red<br>button 44S1                                                                        |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10045 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10046 | A | Release the button 44S1                                                                                                   |  | OK |   | Celiwe Sokhela -<br>491462 | 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 |   | Celiwe Sokhela -<br>491462 | Train |
| 10048 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10049 | A | On the non-active cab TC2, apply<br>emergency brake using the red button<br>44S1                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10050 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10051 | A | Release the button 44S1                                                                                                   |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10052 | A | Put the direction selector switch in<br>NEUTRAL position                                                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                          |  |    |   |                            |       |
|-------|---|----------------------------------------------------------|--|----|---|----------------------------|-------|
| 10053 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10054 | I | Emergency Brake by Master controller<br>TC1              |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10055 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10056 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10057 | A | Put the master controller in EMERGENCY<br>BRAKE position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10058 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10059 | A | Put the master controller in OFF position                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10060 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10061 | I | PEA override TC1                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10062 | A | Put the direction selector switch in<br>FORWARD position |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10063 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10064 | R | Lamp 44H5 is OFF                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10065 | A | Pull any PEA on train                                    |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10066 | R | Lamp 44H5 is ON                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10067 | A | Press the PEA override button 44S5                       |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10068 | A | Reset the PEA by switch 44S6                             |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10069 | R | Lamp 44H5 is OFF                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10070 | A | Press the button 44S5 to normalize PEA<br>override       |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10071 | I | Emergency brake TC2                                      |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10072 | I | Emergency brake by Direction Switch TC2                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                       |  |    |   |                         |       |
|-------|---|-------------------------------------------------------|--|----|---|-------------------------|-------|
| 10073 | I | Direction selector switch is in NEUTRAL position      |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10074 | A | Switch active cab to TC2                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10075 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0  |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_tIneb = 0.0  |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tIneb = 0.0  |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tIneb = 0.0 |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tIneb = 0.0 |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tIneb = 0.0 |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tIneb = 0.0 |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10082 | A | Put the direction selector switch in FORWARD position |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10083 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0  |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_tIneb = 1.0  |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tIneb = 1.0  |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tIneb = 1.0 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tIneb = 1.0 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tIneb = 1.0 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tIneb = 1.0 |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10090 | A | Put the direction selector switch in REVERSE position |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                                           |  |    |   |                            |       |
|-------|---|---------------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10091 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                                                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_tIneb = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tIneb = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu2_tIneb = 1.0                                                                     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tIneb = 1.0                                                                     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tIneb = 1.0                                                                     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tIneb = 1.0                                                                     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10098 | I | Emergency Brake Button TC2                                                                                                |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10099 | A | Apply emergency brake using the red<br>button 44S1                                                                        |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10100 | A | Put the direction selector switch in<br>FORWARD position                                                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10101 | A | Release the button 44S1                                                                                                   |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10102 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10103 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position to reset the<br>emergency brake |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10104 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 0.0                                                                      |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10105 | A | On the non-active can TC1, apply<br>emergency brake using the red button<br>44S1                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10106 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApld = 1.0                                                                      |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10107 | A | Release the button 44S1                                                                                                   |  | OK |   | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                                                  |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10108 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10109 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0                                                                |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10110 | A | Put the direction selector switch in NEUTRAL position                                                            |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10111 | I | Emergency Brake by Master controller TC2                                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10112 | A | Put the direction selector switch in FORWARD position                                                            |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10113 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0                                                                |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10114 | A | Put the master controller in EMERGENCY BRAKE position                                                            |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10115 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0                                                                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10116 | A | Put the master controller in OFF position                                                                        |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10117 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 1.0                                                                |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10118 | I | PEA override TC2                                                                                                 |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10119 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0                                                                |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10120 | A | Pull any PEA on train                                                                                            |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10121 | R | Lamp 44H5 is ON                                                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10122 | A | Press the PEA override button 44S5                                                                               |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10123 | A | Reset the PEA by switch 44S6                                                                                     |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10124 | R | Lamp 44H5 is OFF                                                                                                 |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10125 | A | Press the button 44S5 to normalize PEA override                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                                          |  |    |   |                         |       |
|-------|---|----------------------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10126 | A | Put the direction selector switch in Neutral and FORWARD position                                        |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10127 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                     |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10128 | I | Low Pressure                                                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10129 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler1 = 0.0                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10130 | A | Force [TT]<br>(MPU1)lo_air_tc1compenabler2 = 0.0                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10131 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler1 = 0.0                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10132 | A | Force [TT]<br>(MPU1)lo_air_tc2compenabler2 = 0.0                                                         |  | OK |   | Celiwe Sokhela - 491462 | 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 |   | Celiwe Sokhela - 491462 | Train |
| 10134 | R | On DDU screen, emergency brake due to low pressure appears                                               |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(BCU1)li_mp_ps_ok = 0.0                                                    |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(BCU2)li_mp_ps_ok = 0.0                                                    |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10137 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                     |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10138 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler1                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10139 | A | Release [TT]<br>(MPU1)lo_air_tc1compenabler2                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10140 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler2                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10141 | A | Release [TT]<br>(MPU1)lo_air_tc2compenabler1                                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10142 | I | The pressure in the main pipe should be at least 7 bar for emergency brake to be released                |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                     |  |    |   |                         |       |
|-------|---|-------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10143 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10144 | R | Read Defined Variable [TT] (BCU1)li_mp_ps_ok = 1.0                                  |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10145 | R | Read Defined Variable [TT] (BCU2)li_mp_ps_ok = 1.0                                  |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10146 | R | Read Defined Variable [TT] UBK_EmgcyBrkApId = 0.0                                   |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10147 | I | End of Test                                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 17 – Fire Detection

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### 17.3 Instructions list

### 17.3.1 067\_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            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10002 | I    | Start of Test                                                              |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10003 | A    | Turn the key to Active cab                                                 |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10004 | A    | Close the battery contactor 18S1                                           |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10005 | A    | Press the automatic start button 20S1 to prepare the train in High voltage |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10006 | R    | Read Defined Variable [TT]<br>PNT_AllPantoRaised = 1.0                     |      | OK            | 1            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10007 | R    | Read Defined Variable [TT]<br>HSC_HscbClosedNum = 2.0                      |      | OK            | 2            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10008 | R    | Read Defined Variable [TT]<br>(MPU1)NET_FDCUPresCIP = 1.0                  |      | OK            | 1            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10009 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireSystemOk = 1.0                 |      | OK            | 1            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10010 | R    | Read Defined Variable [TT]<br>(MPU1)FSD_FireLocation = 1.0                 |      | OK            | 1            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10011 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                       |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10012 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data2 = 0.0                       |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10013 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Data3 = 0.0                       |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_DiagData = 0.0                    |      | OK            | 0            | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                     |      | OK            | 17           | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10016 | I    | Fire Detection Simulation test in Saloon                                   |      | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |

|       |   |                                                                                                                               |                                                                                   |    |    |                                   |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----|-----------------------------------|-------|
| 10017 | I | In order to see the CCTV footage where fire was simulated, navigate through the ISO event.                                    |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10018 | I | Both cameras will be activated when a fire is detected in the saloon                                                          |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10019 | I | All HVACs are operational                                                                                                     |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10020 | I | TC1                                                                                                                           |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10021 | A | Simulate a fire by spraying the gas on the fire detection unit 67A4 on TC1 cab for at least 1s                                |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10022 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                                                |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10023 | R | HVAC stops working in the cab and TC1 saloon                                                                                  |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                                                        |                                                                                   | OK | 49 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 1.0                                                                          |                                                                                   | OK | 1  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10026 | A | Reset the fire detection loop on the DDU                                                                                      |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10027 | R | 67H1 turns OFF on the Alarm Module and NO fire detected on the DDU                                                            |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10028 | R | The HVAC of TC1 Cab and Saloon starts working in normal condition                                                             |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                                          |                                                                                   | OK | 0  | Mbavhalelo<br>Funyufunyu - 484649 | 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 |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                                                        |                                                                                   | OK | 17 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10032 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on TC1 car for at least 1s                                |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10033 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on                                                   |                                                                                   | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                                |  |    |    |                                   |       |
|-------|---|------------------------------------------------------------------------------------------------|--|----|----|-----------------------------------|-------|
|       |   | the DDU                                                                                        |  |    |    |                                   |       |
| 10034 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                 |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10035 | R | HVAC stop working in TC1 saloon.                                                               |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10036 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                         |  | OK | 49 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 2.0                                           |  | OK | 2  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10038 | A | Reset the fire detection loop on the DDU                                                       |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10039 | R | HVAC starts working in TC1 saloon                                                              |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10040 | R | Camera footage disappears from the DDU screen                                                  |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                           |  | OK | 0  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                         |  | OK | 17 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10043 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC1 car for at least 1s |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10044 | R | The CCTV footage showing TC1 saloon where the fire was detected is shown on the DDU            |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10045 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                 |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10046 | R | HVAC stop working in TC1 saloon                                                                |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                         |  | OK | 49 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 4.0                                           |  | OK | 4  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10049 | A | Reset the fire detection loop on the DDU                                                       |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10050 | R | HVAC starts working in TC1 saloon                                                              |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                               |  |    |    |                                   |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|----|-----------------------------------|-------|
| 10051 | R | Camera footage disappears from the DDU screen                                                 |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                        |  | OK | 17 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10054 | I | M4 car Test                                                                                   |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10055 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M4 car for at least 1s |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10056 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10057 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10058 | R | HVAC unit stop in M4 saloon.                                                                  |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                        |  | OK | 49 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 32.0                                         |  | OK | 32 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10061 | A | Reset the fire detection loop on the DDU                                                      |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10062 | R | HVAC starts working in the saloon                                                             |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10063 | R | Camera footage disappears from the DDU screen                                                 |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                        |  | OK | 17 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10066 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M4 car for at least 1s |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10067 | R | The CCTV footage showing M4 saloon where the fire was detected is shown on the DDU            |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                               |  |    |     |                                   |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|-----|-----------------------------------|-------|
| 10068 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10069 | R | HVAC stop working in the saloon                                                               |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                        |  | OK | 49  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 64.0                                         |  | OK | 64  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10072 | A | Reset the fire detection loop on the DDU                                                      |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10073 | R | HVAC starts working in M4 saloon                                                              |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10074 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10076 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                        |  | OK | 17  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10077 | I | M1 car                                                                                        |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10078 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M1 car for at least 1s |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10079 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10080 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10081 | R | HVAC stop working on M1                                                                       |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                        |  | OK | 49  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 256.0                                        |  | OK | 256 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10084 | A | Reset the fire detection loop on the DDU                                                      |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10085 | R | HVAC starts working in M1 saloon                                                              |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                               |  |    |     |                                   |       |
|-------|---|-----------------------------------------------------------------------------------------------|--|----|-----|-----------------------------------|-------|
| 10086 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                        |  | OK | 17  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10089 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M1 car for at least 1s |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10090 | R | The CCTV footage showing M1 saloon where the fire was detected is shown on the DDU            |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10091 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location                |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10092 | R | HVAC stop working in M1 saloon.                                                               |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                        |  | OK | 49  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 512.0                                        |  | OK | 512 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10095 | A | Reset the fire detection loop on the DDU                                                      |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10096 | R | HVAC starts working in M1 saloon                                                              |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10097 | R | Camera footage disappears from the DDU screen                                                 |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                          |  | OK | 0   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                        |  | OK | 17  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10100 | I | M2 car Test                                                                                   |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10101 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on M2 for at least 1s     |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10102 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU            |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                           |  |    |      |                                   |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|------|-----------------------------------|-------|
| 10103 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10104 | R | HVAC stop working in M2                                                                   |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                    |  | OK | 49   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 4096.0                                   |  | OK | 4096 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10107 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10108 | R | HVAC starts working in M2                                                                 |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10109 | R | Camera footage disappears from DDU screen                                                 |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                      |  | OK | 0    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                    |  | OK | 17   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10112 | A | Simulate a fire by spraying the gas on the fire detection unit 67A2 on M2 for at least 1s |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10113 | R | The CCTV footage showing M2 saloon where the fire was detected is shown on the DDU        |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10114 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location            |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10115 | R | HVAC stop working                                                                         |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                    |  | OK | 49   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 2048.0                                   |  | OK | 2048 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10118 | A | Reset the fire detection loop on the DDU                                                  |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10119 | R | HVAC starts working in M2                                                                 |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10120 | R | Camera footage disappears from the DDU screen                                             |  | OK |      | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                                 |  |    |       |                                   |       |
|-------|---|-------------------------------------------------------------------------------------------------|--|----|-------|-----------------------------------|-------|
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                            |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                          |  | OK | 17    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10123 | I | M3 car Test                                                                                     |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10124 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A3 on M3 for at least<br>1s |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10125 | R | The CCTV footage showing M3 saloon<br>where the fire was detected is shown on<br>the DDU        |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10126 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location               |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10127 | R | HVAC stop working in M3                                                                         |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                          |  | OK | 49    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 32768.0                                        |  | OK | 32768 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10130 | A | Reset the fire detection loop on the DDU                                                        |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10131 | R | HVAC starts working in M3                                                                       |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10132 | R | Camera footage disappears from the DDU<br>screen                                                |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                            |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                          |  | OK | 17    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10135 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A2 on M3 for at least<br>1s |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10136 | R | The CCTV footage showing M3 saloon<br>where the fire was detected is shown on<br>the DDU        |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10137 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location               |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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|-------|---|--------------------------------------------------------------------------------------------|--|----|--------|-----------------------------------|-------|
| 10138 | R | HVAC stop working in M3                                                                    |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                     |  | OK | 49     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 16384.0                                   |  | OK | 16384  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10141 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10142 | R | HVAC starts working in M3                                                                  |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10143 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                       |  | OK | 0      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                     |  | OK | 17     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10146 | I | TC2                                                                                        |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10147 | A | Simulate a fire by spraying the gas on the fire detection unit 67A3 on TC2 for at least 1s |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10148 | R | The CCTV footage showing TC2 saloon where the fire was detected is shown on the DDU        |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10149 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location             |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10150 | R | HVAC stops working in TC2 saloon                                                           |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                     |  | OK | 49     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 524288.0                                  |  | OK | 524288 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10153 | A | Reset the fire detection loop on the DDU                                                   |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10154 | R | HVAC starts working in TC2                                                                 |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10155 | R | Camera footage disappears from the DDU screen                                              |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10156 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10158 | A | Simulate a fire by spraying the gas on the<br>fire detection unit 67A2 on TC2 for at<br>least 1s     |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10159 | R | The CCTV footage showing TC2 saloon<br>where the fire was detected is shown on<br>the DDU            |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10160 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location                    |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10161 | R | HVAC stops working in TC2 saloon                                                                     |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10162 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 262144.0                                            |  | OK | 262144 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10164 | A | Reset the fire detection loop on the DDU                                                             |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10165 | R | HVAC starts working in TC2                                                                           |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10166 | R | Camera footage disappears from the DDU<br>screen                                                     |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                                                 |  | OK | 0      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                                               |  | OK | 17     | Mbavhalelo<br>Funyufunyu - 484649 | 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 |        | Mbavhalelo<br>Funyufunyu - 484649 | 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 |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10171 | R | HVAC stops working in TC2 saloon                                                                     |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 49.0                                               |  | OK | 49     | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10173 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 131072.0                      |                                                                                   | OK | 131072 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10174 | A | Reset the fire detection loop on the DDU                                       |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10175 | R | HVAC starts working in TC2                                                     |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                           |                                                                                   | OK | 0      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                         |                                                                                   | OK | 17     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10178 | I | Fire Detection Simulation Underframe                                           |  | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10179 | I | TC2 ACU Test                                                                   |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10180 | A | Toggle the switch to activate a fire in the ACU                                |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10181 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10182 | R | Read Undefined Variable [TT]<br>(MPU1)FDCU_Data1                               |                                                                                   | OK | 0      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0                  |                                                                                   | OK | 0      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 1.0                  |                                                                                   | OK | 1      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10185 | A | Remove the switch and put back the cover                                       |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10186 | A | Reset the fire detection loop from the DDU                                     |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10187 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                           |                                                                                   | OK | 0      | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10188 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                         |                                                                                   | OK | 17     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10189 | I | M3 car propulsion box                                                          |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10190 | A | Toggle the switch to activate a fire in M3 propulsion box                      |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10191 | R | 67H1 becomes "ON" on the Alarm Module and the DDU also shows the fire location |                                                                                   | OK |        | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10192 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 65536.0                          |  | OK | 65536 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10193 | R | Confirm that the value above is 65536                                             |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10194 | A | Remove the switch and put back the cover                                          |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10195 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10198 | I | M2 car propulsion box                                                             |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10199 | A | Toggle the switch to activate a fire in M2<br>propulsion box                      |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10200 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10201 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 8192.0                           |  | OK | 8192  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10202 | A | Remove the switch and put back the cover                                          |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10203 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10206 | I | M1 car propulsion box                                                             |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10207 | A | Toggle the switch to activate a fire in M1<br>propulsion box                      |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10208 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |       | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 1024.0                           |  | OK | 1024  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 1.0                     |  | OK | 1   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10211 | A | Remove the switch and put back the cover                                          |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10212 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10213 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10214 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10215 | I | M4 Propulsion box                                                                 |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10216 | A | Toggle the switch to activate a fire in M4<br>Propulsion box                      |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10217 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 128.0                            |  | OK | 128 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10219 | A | Remove the switch and put back the cover                                          |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10220 | A | Reset the fire detection loop from the<br>DDU                                     |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10221 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0                              |  | OK | 0   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10222 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0                            |  | OK | 17  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10223 | I | TC1 ACU Test                                                                      |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10224 | A | Toggle the switch in TC1 to activate a fire<br>in the ACU                         |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10225 | R | 67H1 becomes "ON" on the Alarm Module<br>and the DDU also shows the fire location |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 16.0                             |  | OK | 16  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10227 | A | Remove the switch and put back the cover                                          |  | OK |     | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10228 | A | Reset the fire detection loop from the DDU                    |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Data1 = 0.0          |  | OK | 0  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)FDCU_Status = 17.0        |  | OK | 17 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10231 | A | Close the HSCB                                                |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m1hscbopenr1 = 0.0 |  | OK | 0  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_hsc_m2hscbopenr1 = 0.0 |  | OK | 0  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10234 | I | End of Test                                                   |  | OK |    | Mbavhalelo<br>Funyufunyu - 484649 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 18 – Passenger Doors

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### 18.3 Instructions list

### 18.3.1 050\_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            |              | Mvelo Mthembu - 425564 | Train   |
| 10002 | I    | Initial Conditions                                                |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10003 | I    | All doors should be closed                                        |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10004 | I    | Speed less than 3km/h relay 61K3 is energized                     |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10005 | I    | Start of Test                                                     |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10006 | I    | Uploading procedure:                                              |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10007 | I    | Follow the below instructions to upload software on all the doors |  | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10008 | I    | Doors functional Test TC1 Cab                                     |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10009 | I    | Door authorization not possible in non-active cab                 |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10010 | A    | Remove active cab on TC1                                          |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10011 | A    | Put the door authorization switch 50S7 to DRIVER mode             |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10012 | A    | Press the AUTH LEFT button 50S5                                   |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10013 | R    | Door AUTH LEFT not possible, Lamp 50S5 is OFF                     |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10014 | A    | Press the OPEN LEFT button 50S1                                   |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10015 | R    | OPEN LEFT door not possible, Lamp 50S1 is OFF                     |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10016 | A    | Press the AUTH RIGHT button 50S6                                  |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |
| 10017 | R    | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                    |                                                                                    | OK            |              | Mvelo Mthembu - 425564 | Train   |

|       |   |                                                                           |                                                                                     |    |   |                        |       |
|-------|---|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|------------------------|-------|
| 10018 | A | Press the OPEN RIGHT button 50S2                                          |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10019 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                            |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10020 | I | Door authorization with active cab                                        |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10021 | A | Activate cab on TC1                                                       |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0      |                                                                                     | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10023 | A | Press and hold the AUTH LEFT button 50S5                                  |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10024 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 0.0       |                                                                                     | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10025 | A | Press and hold the OPEN LEFT button 50S1                                  |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0          |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpleftr1 = 1.0       |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10028 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour      |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10029 | R | Door safety loop is OPEN, lamp 51H1 is ON                                 |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10030 | A | Press and hold the CLOSE LEFT button 50S3                                 |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorpleftr1 = 1.0      |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlineleft = 1.0     |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10033 | R | Lamp 51H1 is OFF                                                          |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10034 | R | Check on the DDU screen that all left doors are closed and in blue colour |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10035 | A | Press and hold the AUTH RIGHT button 50S6                                 |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                                                       |                                                                                    |    |   |                        |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----|---|------------------------|-------|
| 10036 | R | Lamp 50S6 is ON                                                                                                       |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10037 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1authdoorpbright = 1.0                                                   |                                                                                    | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1opendoorpbright1 = 0.0                                                  |                                                                                    | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10039 | A | Press and hold the OPEN RIGHT button 50S2                                                                             |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                     |                                                                                    | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0                                                     |                                                                                    | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10042 | R | Check on DDU screen that all right doors are OPEN                                                                     |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10043 | R | Door safety loop is OPEN, lamp 51H1 is ON                                                                             |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10044 | A | Press and hold the button 50S4 to close all right doors                                                               |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorpbright1 = 1.0                                                 |                                                                                    | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1closedoorlineright = 1.0                                                |                                                                                    | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10047 | R | Lamp 51H1 is OFF                                                                                                      |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10048 | R | Check on the DDU screen that all right doors are closed and in blue colour                                            |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10049 | A | Press the AUTH LEFT button 50S5                                                                                       |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10050 | A | Press the OPEN LEFT button 50S1                                                                                       |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10051 | A | Press the AUTH RIGHT button 50S6                                                                                      |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10052 | A | Press the OPEN RIGHT button 50S2                                                                                      |                                                                                    | OK |   | Mvelo Mthembu - 425564 | 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 |                                                                                    | OK |   | Mvelo Mthembu - 425564 | Train |

|       |   |                                         |  |    |  |                        |       |
|-------|---|-----------------------------------------|--|----|--|------------------------|-------|
|       |   | is open                                 |  |    |  |                        |       |
| 10054 | A | Press the CLOSE LEFT button 50S3        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10055 | A | Press the CLOSE RIGHT button 50S4       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10056 | R | All doors are closed on the DDU screen  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10057 | I | Train speed more than 3km/h TC1         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10058 | A | Open 61Q1 to switch OFF the OTDR        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10059 | A | Press the AUTH LEFT button 50S5         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10060 | A | Press the OPEN LEFT button 50S1         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10061 | A | Press the AUTH RIGHT button 50S6        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10062 | A | Press the OPEN RIGHT button 50S2        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10063 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10064 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10065 | R | All left doors are closed               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10066 | R | All right doors are closed              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10067 | A | Press the AUTH LEFT button 50S5         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10068 | A | Press the OPEN LEFT button 50S1         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10069 | A | Press the AUTH RIGHT button 50S6        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10070 | A | Press the OPEN RIGHT button 50S2        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10071 | R | All doors remain closed                 |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10072 | A | Release [TT] (BCU1)LO_SPEED_THRSLD1     |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10073 | A | Release [TT] (BCU2)LO_SPEED_THRSLD1     |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10074 | I | Doors functional Test TC2 Cab           |  | OK |  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                      |  |    |   |                        |       |
|-------|---|----------------------------------------------------------------------|--|----|---|------------------------|-------|
| 10075 | I | Door authorization not possible in non-active cab                    |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10076 | A | Press the AUTH LEFT button 50S5                                      |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10077 | R | Door AUTH LEFT not possible, Lamp 50S5 is OFF                        |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10078 | A | Press the OPEN LEFT button 50S1                                      |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10079 | R | OPEN LEFT door is not possible, Lamp 50S1 is OFF                     |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10080 | A | Press the AUTH RIGHT button 50S6                                     |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10081 | R | Door AUTH RIGHT not possible, Lamp 50S6 is OFF                       |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10082 | A | Press the OPEN RIGHT button 50S2                                     |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10083 | R | OPEN RIGHT door not possible, Lamp 50S2 is OFF                       |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10084 | I | Door authorization with active cab                                   |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10085 | A | Activate cab on TC2                                                  |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10086 | A | Set the door authorization switch 50S7 to DRIVER mode in LV1         |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 0.0 |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10088 | A | Press and hold the AUTH LEFT button 50S5                             |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpleft = 1.0    |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 0.0  |  | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10091 | A | Press and hold the OPEN LEFT button 50S1                             |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0     |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpleftr1 = 1.0  |  | OK | 1 | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                           |                                                                                     |    |   |                        |       |
|-------|---|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|------------------------|-------|
| 10094 | R | Check on DDU screen that all left doors are OPEN and in WHITE colour      |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10095 | I | Door safety loop is OPEN, lamp 51H1 is ON                                 |    | OK |   | Mvelo Mthembu - 425564 | Train |
| 10096 | A | Press and hold the CLOSE LEFT button 50S3                                 |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0     |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpbleftr1 = 1.0     |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10099 | R | Lamp 51H1 is OFF                                                          |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10100 | R | Check on the DDU screen that all left doors are closed and in blue colour |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10101 | A | Press and hold and hold the AUTH RIGHT button 50S6                        |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2authdoorpbright = 1.0       |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 0.0      |                                                                                     | OK | 0 | Mvelo Mthembu - 425564 | Train |
| 10104 | A | Press and hold the OPEN RIGHT button 50S2                                 |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2opendoorpbright1 = 1.0      |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10106 | R | Check on DDU screen that all right doors are OPEN                         |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10107 | I | Door safety loop is OPEN, lamp 51H1 is ON                                 |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10108 | R | Press the CLOSE RIGHT button 50S4                                         |                                                                                     | OK |   | Mvelo Mthembu - 425564 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorlineleft = 1.0     |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2closedoorpbright1 = 1.0     |                                                                                     | OK | 1 | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                                                               |  |    |  |                        |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------|--|----|--|------------------------|-------|
| 10111 | R | Lamp 51H1 is OFF                                                                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10112 | R | Check on the DDU screen that all right doors are closed and in blue colour                                                    |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10113 | A | Press the AUTH LEFT button 50S5                                                                                               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10114 | A | Press the OPEN LEFT button 50S1                                                                                               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10115 | A | Press the AUTH RIGHT button 50S6                                                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10116 | A | Press the OPEN RIGHT button 50S2                                                                                              |  | OK |  | Mvelo Mthembu - 425564 | 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 |  | Mvelo Mthembu - 425564 | Train |
| 10118 | A | Press the CLOSE LEFT button 50S3                                                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10119 | A | Press the CLOSE RIGHT button 50S4                                                                                             |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10120 | R | All doors are closed on the DDU screen                                                                                        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10121 | I | Train speed more than 3km/h TC2                                                                                               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10122 | A | Open 61Q1 to switch OFF the OTDR                                                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10123 | A | Press the AUTH LEFT button 50S5                                                                                               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10124 | A | Press the OPEN LEFT button 50S1                                                                                               |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10125 | A | Press the AUTH RIGHT button 50S6                                                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10126 | A | Press the OPEN RIGHT button 50S2                                                                                              |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10127 | A | Force [TT] (BCU1)LO_SPEED_THRSLD1 = 0.0                                                                                       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10128 | A | Force [TT] (BCU2)LO_SPEED_THRSLD1 = 0.0                                                                                       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10129 | R | All left doors are closed                                                                                                     |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10130 | R | All right doors are closed                                                                                                    |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10131 | A | Press the AUTH LEFT button 50S5                                                                                               |  | OK |  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                                                             |                                                                                     |    |  |                        |       |
|-------|---|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|------------------------|-------|
| 10132 | A | Press the OPEN LEFT button 50S1                                                                             |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10133 | A | Press the AUTH RIGHT button 50S6                                                                            |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10134 | A | Press the OPEN RIGHT button 50S2                                                                            |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10135 | R | All doors remain closed                                                                                     |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10136 | A | Release [TT]<br>(BCU1)LO_SPEED_THRSLD1                                                                      |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10137 | A | Release [TT]<br>(BCU2)LO_SPEED_THRSLD1                                                                      |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10138 | A | Close 61Q1 circuit breaker                                                                                  |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10139 | I | Door Obstacle Detection                                                                                     |                                                                                     | OK |  | Mvelo Mthembu - 425564 | 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 |  | Mvelo Mthembu - 425564 | Train |
| 10141 | A | Press the DOOR AUTH left button 50S5                                                                        |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10142 | A | Press the button 50S1 to open left doors                                                                    |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10143 | A | Place an obstacle at the centre of any of the open doors                                                    |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10144 | A | Close the left doors                                                                                        |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10145 | I | The door with an obstacle will attempt to close 3 times                                                     |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10146 | R | The door with an obstacle appears in white colour on the DDU screen                                         |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10147 | A | Remove the obstacle                                                                                         |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10148 | A | Open and close left doors                                                                                   |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10149 | R | The door which had the obstacle appears closed on the DDU and it's in blue colour                           |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |
| 10150 | I | Door Manual Opening                                                                                         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10151 | A | All doors should be closed including the door covers in each saloon                                         |                                                                                     | OK |  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                          |  |    |    |                        |       |
|-------|---|--------------------------------------------------------------------------|--|----|----|------------------------|-------|
| 10152 | I | TC1                                                                      |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10153 | A | Put the switch 50S7 in DRIVER mode                                       |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10154 | A | Try to manually open ALL TC1 DOORS                                       |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10155 | R | It is not possible to manually open any of the doors                     |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10156 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10157 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 82 | Mvelo Mthembu - 425564 | Train |
| 10158 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 94 | Mvelo Mthembu - 425564 | Train |
| 10159 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 67 | Mvelo Mthembu - 425564 | Train |
| 10160 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 88 | Mvelo Mthembu - 425564 | Train |
| 10161 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 73 | Mvelo Mthembu - 425564 | Train |
| 10162 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 77 | Mvelo Mthembu - 425564 | Train |
| 10163 | A | Manually open the doors                                                  |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10164 | R | Doors opens freely                                                       |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10165 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10166 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10167 | A | Press the OPEN LEFT button 50S1                                          |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10168 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorright = 1.0        |  | OK | 1  | Mvelo Mthembu - 425564 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc1opendoorleft = 1.0         |  | OK | 1  | Mvelo Mthembu - 425564 | Train |
| 10171 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10172 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10173 | R | The TC1 doors remains open                                               |  | OK |    | Mvelo Mthembu - 425564 | Train |

|       |   |                                                     |  |    |  |                        |       |
|-------|---|-----------------------------------------------------|--|----|--|------------------------|-------|
| 10174 | A | Press the button 54S3 to acknowledge PEAs           |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10175 | A | Reset the PEA using switch 44S6                     |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10176 | A | Press AUTH LEFT BUTTON 50S5                         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10177 | A | Press AUTH RIGHT BUTTON 50S6                        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10178 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10179 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10180 | A | Press the CLOSE LEFT button 50S3                    |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10181 | A | Press the CLOSE RIGHT button 50S4                   |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10182 | R | The TC1 doors closes                                |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10183 | A | Activate the lockout device on ALL TC1 Doors        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10184 | R | Doors of TC1 appear as OUT OF SERVICE on DDU screen |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10185 | A | Try to manually open the doors                      |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10186 | R | It is not possible to open any of the doors         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10187 | A | Pull the PEAs                                       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10188 | A | Try to manually open the doors                      |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10189 | R | It is not possible to open any of the doors         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10190 | A | Press AUTH LEFT BUTTON 50S5                         |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10191 | A | Press AUTH RIGHT BUTTON 50S6                        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10192 | A | Press the OPEN LEFT button 50S1                     |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10193 | A | Press the OPEN RIGHT button 50S2                    |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10194 | R | All Train doors are open except for TC1 doors       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA            |  | OK |  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                          |  |    |     |                        |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|------------------------|-------|
| 10196 | A | Release the lockout devices                                              |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10197 | A | Reset the PEAs using the switch 44S6                                     |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10198 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10199 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10200 | R | Doors appears as Closed on the DDU screen                                |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10201 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0        |  | OK | 0   | Mvelo Mthembu - 425564 | Train |
| 10202 | I | M4 car                                                                   |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10203 | A | Try to manually open ALL M4 DOORS                                        |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10204 | R | It is not possible to manually open any of the doors                     |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10205 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10206 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 91  | Mvelo Mthembu - 425564 | Train |
| 10207 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 76  | Mvelo Mthembu - 425564 | Train |
| 10208 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 90  | Mvelo Mthembu - 425564 | Train |
| 10209 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 101 | Mvelo Mthembu - 425564 | Train |
| 10210 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 92  | Mvelo Mthembu - 425564 | Train |
| 10211 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 87  | Mvelo Mthembu - 425564 | Train |
| 10212 | A | Manually open the doors                                                  |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10213 | R | Doors opens freely                                                       |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10214 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10215 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10216 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10217 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                  |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10218 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorright = 1.0 |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10219 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m4opendoorleft = 1.0  |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10220 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10221 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10222 | R | The M4 doors remains open                                        |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10223 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10224 | A | Reset the PEA using switch 44S6                                  |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10225 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10226 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10227 | A | Press the OPEN LEFT button 50S1                                  |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10228 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10229 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10230 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10231 | R | The M4 doors closes                                              |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10232 | A | Activate the lockout device on ALL M4<br>Doors                   |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10233 | R | Doors of M4 appear as OUT OF SERVICE<br>on DDU screen            |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10234 | A | Try to manually open the doors                                   |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10235 | R | It is not possible to open any of the doors                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10236 | A | Pull the PEAs                                                    |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10237 | A | Try to manually open the doors                                   |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10238 | R | It is not possible to open any of the doors                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10239 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |

|       |   |                                                                          |  |    |     |                        |       |
|-------|---|--------------------------------------------------------------------------|--|----|-----|------------------------|-------|
| 10240 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10241 | A | Press the OPEN LEFT button 50S1                                          |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10242 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10243 | R | All Train doors are open except for M4 doors                             |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10244 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10245 | A | Release the lockout devices                                              |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10246 | A | Reset the PEAs using the switch 44S6                                     |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10247 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10248 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10249 | R | Doors appears as Closed on the DDU screen                                |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0   | Mvelo Mthembu - 425564 | Train |
| 10251 | I | M1 car                                                                   |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10252 | A | Try to manually open ALL M1 DOORS                                        |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10253 | R | It is not possible to manually open any of the doors                     |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10254 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |     | Mvelo Mthembu - 425564 | Train |
| 10255 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 79  | Mvelo Mthembu - 425564 | Train |
| 10256 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 99  | Mvelo Mthembu - 425564 | Train |
| 10257 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 104 | Mvelo Mthembu - 425564 | Train |
| 10258 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 92  | Mvelo Mthembu - 425564 | Train |
| 10259 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 95  | Mvelo Mthembu - 425564 | Train |
| 10260 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 72  | Mvelo Mthembu - 425564 | Train |
| 10261 | A | Manually open the doors                                                  |  | OK |     | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                  |  |    |   |                        |       |
|-------|---|------------------------------------------------------------------|--|----|---|------------------------|-------|
| 10262 | R | Doors opens freely                                               |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10263 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10264 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10265 | A | Press the OPEN LEFT button 50S1                                  |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10266 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m1opendoorright = 1.0 |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1 | Mvelo Mthembu - 425564 | Train |
| 10269 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10270 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10271 | R | The M1 doors remains open                                        |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10272 | A | Press the button 54S3 to acknowledge PEAs                        |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10273 | A | Reset the PEA using switch 44S6                                  |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10274 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10275 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10276 | A | Press the OPEN LEFT button 50S1                                  |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10277 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10278 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10279 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10280 | R | The M1 doors closes                                              |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10281 | A | Activate the lockout device on ALL M1 Doors                      |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10282 | R | Doors of M1 appear as OUT OF SERVICE on DDU screen               |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10283 | A | Try to manually open the doors                                   |  | OK |   | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                          |  |    |    |                        |       |
|-------|---|--------------------------------------------------------------------------|--|----|----|------------------------|-------|
| 10284 | R | It is not possible to open any of the doors                              |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10285 | A | Pull the PEAs                                                            |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10286 | A | Try to manually open the doors                                           |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10287 | R | It is not possible to open any of the doors                              |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10288 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10289 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10290 | A | Press the OPEN LEFT button 50S1                                          |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10291 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10292 | R | All Train doors are open except for M1 doors                             |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10293 | A | Press the button 54S3 to acknowledge PEA                                 |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10294 | A | Release the lockout devices                                              |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10295 | A | Reset the PEAs using the switch 44S6                                     |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10296 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10297 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10298 | R | Doors appears as Closed on the DDU screen                                |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0  | Mvelo Mthembu - 425564 | Train |
| 10300 | I | M2 car                                                                   |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10301 | A | Try to manually open ALL M2 DOORS                                        |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10302 | R | It is not possible to manually open any of the doors                     |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10303 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10304 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 69 | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                  |  |    |    |                           |       |
|-------|---|------------------------------------------------------------------|--|----|----|---------------------------|-------|
| 10305 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 95 | Mvelo Mthembu -<br>425564 | Train |
| 10306 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 83 | Mvelo Mthembu -<br>425564 | Train |
| 10307 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 97 | Mvelo Mthembu -<br>425564 | Train |
| 10308 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 88 | Mvelo Mthembu -<br>425564 | Train |
| 10309 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                    |  | OK | 79 | Mvelo Mthembu -<br>425564 | Train |
| 10310 | A | Manually open the doors                                          |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10311 | R | Doors opens freely                                               |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10312 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10313 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10314 | A | Press the OPEN LEFT button 50S1                                  |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10315 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorright = 1.0 |  | OK | 1  | Mvelo Mthembu -<br>425564 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m2opendoorleft = 1.0  |  | OK | 1  | Mvelo Mthembu -<br>425564 | Train |
| 10318 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10319 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10320 | R | The M2 doors remains open                                        |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10321 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10322 | A | Reset the PEA using switch 44S6                                  |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10323 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10324 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10325 | A | Press the OPEN LEFT button 50S1                                  |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10326 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |    | Mvelo Mthembu -<br>425564 | Train |
| 10327 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |    | Mvelo Mthembu -<br>425564 | Train |

|       |   |                                                                      |  |    |   |                        |       |
|-------|---|----------------------------------------------------------------------|--|----|---|------------------------|-------|
| 10328 | A | Press the CLOSE RIGHT button 50S4                                    |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10329 | R | The M2 doors closes                                                  |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10330 | A | Activate the lockout device on ALL M2 Doors                          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10331 | R | Doors of M2 appear as OUT OF SERVICE on DDU screen                   |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10332 | A | Try to manually open the doors                                       |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10333 | R | It is not possible to open any of the doors                          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10334 | A | Pull the PEAs                                                        |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10335 | A | Try to manually open the doors                                       |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10336 | R | It is not possible to open any of the doors                          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10337 | A | Press AUTH LEFT BUTTON 50S5                                          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10338 | A | Press AUTH RIGHT BUTTON 50S6                                         |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10339 | A | Press the OPEN LEFT button 50S1                                      |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10340 | A | Press the OPEN RIGHT button 50S2                                     |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10341 | R | All Train doors are open except for M2 doors                         |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10342 | A | Press the button 54S3 to acknowledge PEA                             |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10343 | A | Release the lockout devices                                          |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10344 | A | Reset the PEAs using the switch 44S6                                 |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10345 | A | Press the CLOSE LEFT button 50S3                                     |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10346 | A | Press the CLOSE RIGHT button 50S4                                    |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10347 | R | Doors appears as Closed on the DDU screen                            |  | OK |   | Mvelo Mthembu - 425564 | Train |
| 10348 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0 |  | OK | 0 | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                          |  |    |    |                        |       |
|-------|---|--------------------------------------------------------------------------|--|----|----|------------------------|-------|
| 10349 | I | M3 car                                                                   |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10350 | A | Try to manually open ALL M3 DOORS                                        |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10351 | R | It is not possible to manually open any of the doors                     |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10352 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10353 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 77 | Mvelo Mthembu - 425564 | Train |
| 10354 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 98 | Mvelo Mthembu - 425564 | Train |
| 10355 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 81 | Mvelo Mthembu - 425564 | Train |
| 10356 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 68 | Mvelo Mthembu - 425564 | Train |
| 10357 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 90 | Mvelo Mthembu - 425564 | Train |
| 10358 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 96 | Mvelo Mthembu - 425564 | Train |
| 10359 | A | Manually open the doors                                                  |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10360 | R | Doors opens freely                                                       |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10361 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10362 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10363 | A | Press the OPEN LEFT button 50S1                                          |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10364 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorright = 1.0         |  | OK | 1  | Mvelo Mthembu - 425564 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_m3opendoorleft = 1.0          |  | OK | 1  | Mvelo Mthembu - 425564 | Train |
| 10367 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10368 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10369 | R | The M3 doors remains open                                                |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10370 | A | Press the button 54S3 to acknowledge PEAs                                |  | OK |    | Mvelo Mthembu - 425564 | Train |

|       |   |                                                    |  |    |  |                        |       |
|-------|---|----------------------------------------------------|--|----|--|------------------------|-------|
| 10371 | A | Reset the PEA using switch 44S6                    |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10372 | A | Press AUTH LEFT BUTTON 50S5                        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10373 | A | Press AUTH RIGHT BUTTON 50S6                       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10374 | A | Press the OPEN LEFT button 50S1                    |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10375 | A | Press the OPEN RIGHT button 50S2                   |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10376 | A | Press the CLOSE LEFT button 50S3                   |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10377 | A | Press the CLOSE RIGHT button 50S4                  |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10378 | R | The M3 doors closes                                |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10379 | A | Activate the lockout device on ALL M3 Doors        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10380 | R | Doors of M3 appear as OUT OF SERVICE on DDU screen |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10381 | A | Try to manually open the doors                     |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10382 | R | It is not possible to open any of the doors        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10383 | A | Pull the PEAs                                      |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10384 | A | Try to manually open the doors                     |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10385 | R | It is not possible to open any of the doors        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10386 | A | Press AUTH LEFT BUTTON 50S5                        |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10387 | A | Press AUTH RIGHT BUTTON 50S6                       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10388 | A | Press the OPEN LEFT button 50S1                    |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10389 | A | Press the OPEN RIGHT button 50S2                   |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10390 | R | All Train doors are open except for M3 doors       |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10391 | A | Press the button 54S3 to acknowledge PEA           |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 10392 | A | Release the lockout devices                        |  | OK |  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                          |  |    |    |                        |       |
|-------|---|--------------------------------------------------------------------------|--|----|----|------------------------|-------|
| 10393 | A | Reset the PEAs using the switch 44S6                                     |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10394 | A | Press the CLOSE LEFT button 50S3                                         |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10395 | A | Press the CLOSE RIGHT button 50S4                                        |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10396 | R | Doors appears as Closed on the DDU screen                                |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10397 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc1alldoorsclosedr1 = 0.0     |  | OK | 0  | Mvelo Mthembu - 425564 | Train |
| 10398 | I | TC2 car                                                                  |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10399 | A | Try to manually open ALL TC2 DOORS                                       |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10400 | R | It is not possible to manually open any of the doors                     |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10401 | A | Pull the PEA using the Force gauge while measuring the effort of the PEA |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10402 | R | DOOR1 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 90 | Mvelo Mthembu - 425564 | Train |
| 10403 | R | DOOR2 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 68 | Mvelo Mthembu - 425564 | Train |
| 10404 | R | DOOR3 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 66 | Mvelo Mthembu - 425564 | Train |
| 10405 | R | DOOR4 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 83 | Mvelo Mthembu - 425564 | Train |
| 10406 | R | DOOR5 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 96 | Mvelo Mthembu - 425564 | Train |
| 10407 | R | DOOR6 PEA effort<br>Result Max : x <= 120 (N)                            |  | OK | 84 | Mvelo Mthembu - 425564 | Train |
| 10408 | A | Manually open the doors                                                  |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10409 | R | Doors opens freely                                                       |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10410 | A | Press AUTH LEFT BUTTON 50S5                                              |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10411 | A | Press AUTH RIGHT BUTTON 50S6                                             |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10412 | A | Press the OPEN LEFT button 50S1                                          |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10413 | A | Press the OPEN RIGHT button 50S2                                         |  | OK |    | Mvelo Mthembu - 425564 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorright = 1.0        |  | OK | 1  | Mvelo Mthembu - 425564 | Train |

|       |   |                                                                  |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)lo_dor_tc2opendoorleft = 1.0 |  | OK | 1 | Mvelo Mthembu -<br>425564 | Train |
| 10416 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10417 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10418 | R | The TC2 doors remains open                                       |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10419 | A | Press the button 54S3 to acknowledge<br>PEAs                     |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10420 | A | Reset the PEA using switch 44S6                                  |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10421 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10422 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10423 | A | Press the OPEN LEFT button 50S1                                  |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10424 | A | Press the OPEN RIGHT button 50S2                                 |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10425 | A | Press the CLOSE LEFT button 50S3                                 |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10426 | A | Press the CLOSE RIGHT button 50S4                                |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10427 | R | The TC2 doors closes                                             |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10428 | A | Activate the lockout device on ALL TC2<br>Doors                  |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10429 | R | Doors of TC2 appear as OUT OF SERVICE<br>on DDU screen           |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10430 | A | Try to manually open the doors                                   |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10431 | R | It is not possible to open any of the doors                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10432 | A | Pull the PEAs                                                    |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10433 | A | Try to manually open the doors                                   |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10434 | R | It is not possible to open any of the doors                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10435 | A | Press AUTH LEFT BUTTON 50S5                                      |  | OK |   | Mvelo Mthembu -<br>425564 | Train |
| 10436 | A | Press AUTH RIGHT BUTTON 50S6                                     |  | OK |   | Mvelo Mthembu -<br>425564 | Train |

|       |   |                                                                                                                                                |  |    |   |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|--|----|---|--------------------------|-------|
| 10437 | A | Press the OPEN LEFT button 50S1                                                                                                                |  | OK |   | Mvelo Mthembu - 425564   | Train |
| 10438 | A | Press the OPEN RIGHT button 50S2                                                                                                               |  | OK |   | Mvelo Mthembu - 425564   | Train |
| 10439 | R | All Train doors are open except for TC2 doors                                                                                                  |  | OK |   | Mvelo Mthembu - 425564   | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA                                                                                                       |  | OK |   | Mvelo Mthembu - 425564   | Train |
| 10441 | A | Release the lockout devices                                                                                                                    |  | OK |   | Mvelo Mthembu - 425564   | Train |
| 10442 | A | Reset the PEAs using the switch 44S6                                                                                                           |  | OK |   | Mvelo Mthembu - 425564   | Train |
| 10443 | A | Press the CLOSE LEFT button 50S3                                                                                                               |  | OK |   | Mvelo Mthembu - 425564   | Train |
| 10444 | A | Press the CLOSE RIGHT button 50S4                                                                                                              |  | OK |   | Mvelo Mthembu - 425564   | Train |
| 10445 | R | Doors appears as Closed on the DDU screen                                                                                                      |  | OK |   | Mvelo Mthembu - 425564   | Train |
| 10446 | R | Read Defined Variable [TT] (MPU1)li_dor_tc1alldoorsclosedr1 = 0.0                                                                              |  | OK | 0 | Nokuzola Mdluli - 491469 | Train |
| 10447 | I | Door cycle test                                                                                                                                |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10448 | I | This test should be performed at the end of the shift when there is no one who will want to go inside the train and disrupt the test cycle.    |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10449 | A | Check all the doors beep when opening and closing                                                                                              |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10450 | A | Check door lights are green when open for all doors                                                                                            |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10451 | A | Check door lights are red when closing from all doors                                                                                          |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10452 | A | Launch the door cycle test from the DDU                                                                                                        |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10453 | I | At the beginning of the next shift (test should be left to run overnight), all doors should still be able to open and close without any issues |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10454 | R | Door cycle test is successful                                                                                                                  |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10455 | I | End Test                                                                                                                                       |  | OK |   | Nokuzola Mdluli - 491469 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 19 – Traction Interlock

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### 19.3 Instructions list

### 19.3.1 031\_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            |              | Siphesihle Mchunu - 491465 | Train   |
| 10002 | I    | Initial Conditions                                                   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10003 | I    | The direction selector switch 30A1.S2 should be in NEUTRAL position  |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10004 | I    | All doors should be closed                                           |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10005 | I    | Emergency brake should be applied                                    |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10006 | I    | PEA override switch should be in NORMAL position                     |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10007 | I    | Traction Interlock override switch 31S1 should be in NORMAL position |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10008 | I    | Backup mode switch 27S1 should be in NORMAL position                 |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10009 | I    | Start of Test                                                        |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10010 | I    | Traction Interlock TC1                                               |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10011 | A    | Active cab on TC1                                                    |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10012 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10013 | A    | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                   |      | OK            |              | Siphesihle Mchunu - 491465 | Train   |
| 10014 | R    | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10015 | R    | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0            |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |
| 10016 | R    | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0           |      | OK            | 0            | Siphesihle Mchunu - 491465 | Train   |

|       |   |                                                                            |  |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10017 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10020 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10022 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10024 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10025 | I | Emergency brake is released                                                |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10026 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10028 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10030 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10034 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                            |  |    |   |                              |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10036 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10037 | I | Emergency brake is released                                                |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10040 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0       |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10045 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0       |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10046 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10048 | I | Traction interlock with Doors TC1                                          |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10049 | A | Manually open any door                                                     |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10050 | R | LED 51H1 is "ON" on alarm module                                           |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10051 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10052 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10053 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10054 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10056 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10058 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10059 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10060 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10061 | I | Simulate train speed of 5km/h contactor<br>61K2 is closed              |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10062 | A | Energize point 41 of terminal block<br>93XT104_5 with 110V DC          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10063 | R | The opened door will automatically close                               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10065 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10066 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10067 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10068 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10070 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10071 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10073 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10074 | A | Activate any PEA                                                       |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10075 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10076 | I | Speed is greater than 5km/h therefore all<br>doors will remain closed  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10077 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10079 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10083 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10085 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10087 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10088 | A | Reset PEA using switch 44S6                                            |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10090 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10093 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10095 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10096 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10097 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10099 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10100 | A | Activate any PEA                                                       |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10101 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10102 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10103 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10104 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                              |       |
|-------|---|------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10107 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10108 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10110 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10112 | A | Reset PEA using switch 44S6                                            |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10113 | A | Close the door opened above manually                                   |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10114 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10116 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10117 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10118 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10119 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10120 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10122 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10123 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10124 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                                                                  |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10125 | A | Press the red button 44S1 to make an emergency brake                                                             |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10126 | R | Contactor of 44K12 and 44K11 are de-energized                                                                    |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10127 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                                                        |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10128 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                                        |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10129 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10130 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10131 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10132 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10133 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                             |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10134 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                             |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10135 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                           |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10136 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                           |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10137 | A | Release the red button 44S1 for emergency brake                                                                  |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10138 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10139 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                                        |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10140 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                                        |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                                       |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10142 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10143 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10144 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10145 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10148 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10149 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 1.0                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10150 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10151 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10154 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10155 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10156 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10157 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10158 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10161 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10162 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 1.0                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10163 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10164 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10165 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10166 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10167 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10168 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10169 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10170 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10171 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10172 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10173 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr1 = 0.0                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10174 | A | Force [TT]<br>(MPU1)lo_drc_tc1tractionloopr2 = 0.0                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10175 | A | Put the direction selector switch in<br>NEUTRAL Position               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                                                                  |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10176 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                                                        |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10177 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                                        |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10178 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10179 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10180 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10181 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                                       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10182 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0                                             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10183 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0                                             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10184 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0                                           |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10185 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0                                           |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10186 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                                                                   |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10187 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                                                                   |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10188 | I | Traction Interlock Override TC1                                                                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10189 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position                                                   |  | OK |   | Siphesihle Mchunu -<br>491465 | 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 |   | Siphesihle Mchunu -<br>491465 | Train |
| 10191 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                                        |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10192 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                                        |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10193 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_tINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10194 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10195 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10196 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10197 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10198 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10199 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10200 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10201 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position           |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10202 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10203 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10204 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10205 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10206 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10207 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10208 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr1 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10209 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractionauthorr2 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                            |  |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10210 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider1 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10211 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc1tractintoverrider2 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10212 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr1                             |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10213 | A | Release [TT]<br>(MPU1)lo_drc_tc1tractionloopr2                             |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10214 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10215 | A | Remove active cab on TC1                                                   |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10216 | I | Traction Interlock TC2                                                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10217 | A | Active Cab on TC2                                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10218 | I | The direction selector switch 30A1.S2<br>should be in NEUTRAL position     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10219 | I | All doors should be closed                                                 |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10220 | I | Emergency brake should be applied                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10221 | I | PEA override switch should be in<br>NORMAL position                        |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10222 | I | Traction Interlock override switch 31S1<br>should be in NORMAL position    |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10223 | I | Backup mode switch 27S1 should be in<br>NORMAL position                    |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10224 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10225 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10226 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10227 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                            |  |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10228 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10229 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10230 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10231 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10232 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10233 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10234 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10235 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10236 | A | Put the direction selector switch 30A1.S2<br>should be in FORWARD position |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10237 | I | Emergency brake is released                                                |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10238 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10239 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10240 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10241 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10242 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10243 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10244 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10245 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

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|-------|---|----------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10246 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10247 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10248 | A | Put the direction selector switch 30A1.S2<br>should be in REVERSE position |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10249 | I | Emergency brake is released                                                |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10250 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                  |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10251 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                  |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10252 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10253 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10254 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10255 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10256 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10257 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0       |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10258 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10259 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10260 | I | Traction Interlock with Doors TC2                                          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10261 | A | Manually open any door                                                     |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10262 | R | LED 51H1 is "ON" on alarm module                                           |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10263 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10264 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10265 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10266 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10267 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10268 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10269 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10270 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10271 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10272 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10273 | I | Simulate train speed of 5km/h contactor<br>61K2 is closed              |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10274 | A | Energize point 41 of terminal block<br>93XT104_5 with 110V DC          |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10275 | R | The opened door will automatically close                               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10277 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10278 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10279 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10280 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10281 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |

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|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10282 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10283 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10284 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10285 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10286 | A | Activate any PEA                                                       |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10287 | A | After 3 seconds press the button 44S5                                  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10288 | I | Speed is greater than 5km/h therefore all<br>doors will remain closed  |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10289 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10290 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10291 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10292 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10293 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10294 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10295 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10296 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10297 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10298 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10299 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10300 | A | Reset PEA using switch 44S6                                            |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10301 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10302 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10303 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10304 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10305 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10306 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu - 491465 | Train |
| 10307 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10308 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10309 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10310 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10311 | A | Remove 110V DC from terminal block<br>93XT104_5 point 41               |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10312 | A | Activate any PEA                                                       |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10313 | R | Door is unlocked and can be manually<br>opened                         |  | OK |   | Siphesihle Mchunu - 491465 | Train |
| 10314 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10315 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10316 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |
| 10317 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu - 491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10318 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10319 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10320 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10321 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10322 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10323 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10324 | A | Reset PEA using switch 44S6                                            |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10325 | A | Close the door opened above manually                                   |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10326 | R | Door safety loop is closed, contactor 51K1<br>and 51K2 are energized   |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10327 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10328 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10329 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10330 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10331 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10332 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10333 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10334 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10335 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                                           |  |    |   |                              |       |
|-------|---|-------------------------------------------------------------------------------------------|--|----|---|------------------------------|-------|
| 10336 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0                    |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10337 | A | Press the red button 44S1 to make an<br>emergency brake                                   |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                                 |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10339 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                                 |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                                |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10341 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                                |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10342 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                                |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10343 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                                |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10344 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0                      |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10345 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0                      |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10346 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0                    |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10347 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0                    |  | OK | 0 | Siphehile Mchunu -<br>491465 | Train |
| 10348 | A | Release the red button 44S1 for<br>emergency brake                                        |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10349 | A | Put the direction selector switch in<br>NEUTRAL position and again in<br>FORWARD position |  | OK |   | Siphehile Mchunu -<br>491465 | Train |
| 10350 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0                                 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10351 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0                                 |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |
| 10352 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                                |  | OK | 1 | Siphehile Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10353 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10354 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10355 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10356 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10357 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10358 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10359 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10360 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Alleta Sekgololo -<br>417407  | Train |
| 10361 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 1.0                     |  | OK |   | Alleta Sekgololo -<br>417407  | Train |
| 10362 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10363 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10364 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10365 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10366 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10367 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10368 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10369 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10370 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10371 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10372 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 1.0                     |  | OK |   | Alleta Sekgololo -<br>417407  | Train |
| 10373 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Alleta Sekgololo -<br>417407  | Train |
| 10374 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10375 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10376 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10377 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10378 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10379 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0             |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10380 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10381 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 0.0   |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10382 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10383 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10384 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr2 = 0.0                     |  | OK |   | Alleta Sekgololo -<br>417407  | Train |
| 10385 | A | Force [TT]<br>(MPU1)lo_drc_tc2tractionloopr1 = 0.0                     |  | OK |   | Alleta Sekgololo -<br>417407  | Train |
| 10386 | A | Put the direction selector switch in<br>NEUTRAL position               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                        |  |    |   |                               |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10387 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10388 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10389 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10390 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0             |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10391 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0              |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10392 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0              |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10393 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10394 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10395 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10396 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10397 | I | Traction Interlock Override TC2                                        |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10398 | A | Put the Traction Interlock switch 31S1 in<br>OVERRIDE position         |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10399 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10400 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10401 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0   |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10402 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10403 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 1.0 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10404 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 1.0              |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |

|       |   |                                                                            |  |    |   |                               |       |
|-------|---|----------------------------------------------------------------------------|--|----|---|-------------------------------|-------|
| 10405 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10406 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10407 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10408 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 1.0                 |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10409 | A | Put the Traction Interlock switch 31S1 in<br>NORMAL position               |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10410 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnotinhib = 0.0                  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10411 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr1 = 1.0       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10412 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractionauthorr2 = 1.0       |  | OK | 1 | Siphesihle Mchunu -<br>491465 | Train |
| 10413 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider1 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10414 | R | Read Defined Variable [TT]<br>(MPU1)li_drc_tc2tractintoverrider2 = 0.0     |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10415 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINotInhib = 0.0                  |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10416 | R | Read Defined Variable [TT]<br>(MPU1)TBCU1_TINotInhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10417 | R | Read Defined Variable [TT]<br>(MPU1)TBCU2_tlnotinhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10418 | R | Read Defined Variable [TT]<br>(MPU1)tbcu3_tlnotinhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10419 | R | Read Defined Variable [TT]<br>(MPU1)tbcu4_tlnotinhib = 0.0                 |  | OK | 0 | Siphesihle Mchunu -<br>491465 | Train |
| 10420 | A | Put the direction selector switch 30A1.S2<br>should be in NEUTRAL position |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |
| 10421 | I | End of Test                                                                |  | OK |   | Siphesihle Mchunu -<br>491465 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 20 – Deadman

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### 20.3 Instructions list

### 20.3.1 060\_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            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Conditions                                                                        |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | The Traction and Emergency test procedure must be completed prior to performing this test |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Lamp 60H2 is OFF                                                                          |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | Master Controller is in Neutral position                                                  |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | I    | No Driving Direction selected                                                             |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | I    | Prepare train in LV ready with active cab on TC1                                          |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | I    | Start of Test                                                                             |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | I    | Deadman override TC1                                                                      |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                         |                                                                                     | OK            | 0            | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Put the override switch 60S1 to OVERRIDE position                                         |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | R    | Lamp 60H2 is "ON" on the alarm module                                                     |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | R    | Verify that the Deadman override indication appears on the DDU screen                     |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | R    | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr2 = 1.0                         |                                                                                     | OK            | 1            | Celiwe Sokhela - 491462 | Train   |
| 10015 | A    | Put the override switch 60S1 to NORMAL position                                           |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | R    | Read Defined Variable [TT] (MPU1)li_dsd_tc1deadmanoverridr1 = 0.0                         |                                                                                     | OK            | 0            | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                                          |  |    |   |                         |       |
|-------|---|------------------------------------------------------------------------------------------|--|----|---|-------------------------|-------|
| 10017 | R | Lamp 60H2 is OFF                                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10018 | I | Deadman by Master Controller TC1                                                         |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10020 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10021 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10022 | A | Release the Master Controller switch 30A1.S4                                             |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10023 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10024 | I | Deadman by button 60S3 TC1                                                               |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10025 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10026 | A | Press the button 60S3 and hold it while reading variable below                           |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10027 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 1.0                            |  | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10028 | A | Release the button 60S3                                                                  |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10029 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1deadmanr1 = 0.0                            |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10030 | I | Deadman functional test TC1                                                              |  | OK |   | Celiwe Sokhela - 491462 | Train |
| 10031 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 0.0                           |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 0.0                        |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0                     |  | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10034 | A | Select Driving Direction to FORWARD                                                      |  | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                              |    |    |   |                            |       |
|-------|---|----------------------------------------------------------------------------------------------|----|----|---|----------------------------|-------|
| 10035 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                          |    | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10036 | I | After 2.5 seconds buzzer starts beeping                                                      |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10037 | R | Lamp 60H1 is ON                                                                              | DM | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10038 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1deadmanlampr1 = 1.0                            |    | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10039 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc1dmbuzzerr1 = 1.0                               |    | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10040 | I | A constant push on the button 60S3 or<br>Master controller will result in Emergency<br>brake |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10041 | A | Press and hold down the master controller<br>for about 2s                                    |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10042 | R | Lamp 60H1 is OFF                                                                             |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10043 | R | No sound from buzzer                                                                         |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10044 | A | Release master controller                                                                    |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10045 | I | After 2.5 seconds buzzer starts beeping                                                      |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10046 | R | Lamp 60H1 is ON                                                                              |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10047 | A | Press and hold the button 60S3 for about<br>2s                                               |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10048 | R | Lamp 60H1 is OFF                                                                             |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10049 | R | No sound from buzzer                                                                         |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10050 | A | Release Deadman button 60S3                                                                  |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10051 | I | After 2.5 seconds buzzer starts beeping                                                      |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10052 | R | After 5 seconds, emergency brake is<br>applied                                               | DM | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10053 | R | Verify on the DDU that the Emergency<br>brake by Deadman indication is ON                    |    | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10054 | R | Read Defined Variable [TT]                                                                   |    | OK | 1 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                    |    |    |   |                         |       |
|-------|---|------------------------------------------------------------------------------------|----|----|---|-------------------------|-------|
|       |   | (MPU1)li_dsd_tc1ebdeadmanrelayr1 = 1.0                                             |    |    |   |                         |       |
| 10055 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10056 | A | Select Driving direction to NEUTRAL and FORWARD again to reset the emergency brake |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10057 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10058 | A | Press down the Master controller and hold                                          |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10059 | I | After 45s, emergency brake is applied                                              | DM | OK |   | Celiwe Sokhela - 491462 | Train |
| 10060 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON             |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc1ebdeadmanrelayr1 = 0.0               |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10062 | A | Release the Master controller                                                      |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10063 | A | Select the driving direction to NEUTRAL position                                   |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10064 | R | Read Defined Variable [TT]<br>(MPU1)bcu1_tlnb = 0.0                                |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10065 | A | Remove active cab on TC1                                                           |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10066 | I | Deadman Override TC2                                                               |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10067 | A | Active cab on TC2                                                                  |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10068 | I | Deadman override switch 60S1 must be in NORMAL position                            |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10069 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanoverridr1 = 0.0               |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10070 | A | Put the Deadman override switch 60S1 to OVERRIDE position                          | DM | OK |   | Celiwe Sokhela - 491462 | Train |
| 10071 | R | Verify on the DDU that the Deadman override indication is ON                       |    | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                          |  |    |   |                            |       |
|-------|---|------------------------------------------------------------------------------------------|--|----|---|----------------------------|-------|
| 10072 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanoverridr1 = 1.0                     |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10073 | R | Lamp 60H2 is ON                                                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10074 | A | Put the override switch 60S1 in NORMAL position                                          |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10075 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanoverridr1 = 0.0                     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10076 | R | Lamp 60H2 is OFF                                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10077 | I | Deadman by Master Controller TC2                                                         |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10079 | A | Press the master controller Deadman switch 30A1.S4 and hold while reading variable below |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10080 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 1.0                            |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10081 | A | Release the master controller                                                            |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr2 = 0.0                            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10083 | I | Deadman by button 60S3 TC2                                                               |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10084 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10085 | A | Press the button 60S3 and hold it while reading the variable below                       |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 1.0                            |  | OK | 1 | Celiwe Sokhela -<br>491462 | Train |
| 10087 | A | Release the button 60S3                                                                  |  | OK |   | Celiwe Sokhela -<br>491462 | Train |
| 10088 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2deadmanr1 = 0.0                            |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |
| 10089 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelayr1 = 0.0                     |  | OK | 0 | Celiwe Sokhela -<br>491462 | Train |

|       |   |                                                                                        |    |    |   |                         |       |
|-------|---|----------------------------------------------------------------------------------------|----|----|---|-------------------------|-------|
| 10090 | I | Deadman functional test TC2                                                            |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10091 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 0.0                         |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10092 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlampr1 = 0.0                      |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10093 | A | Select Driving Direction to FORWARD                                                    |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10094 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                   |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10095 | I | After 2.5 seconds buzzer starts beeping                                                |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10096 | R | lamp 60H1 is ON                                                                        | DM | OK |   | Celiwe Sokhela - 491462 | Train |
| 10097 | R | Verify on the DDU screen that the Deadman active indication is ON                      |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10098 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2deadmanlampr1 = 1.0                      |    | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10099 | R | Read Defined Variable [TT]<br>(MPU1)lo_dsd_tc2dmbuzzerr1 = 1.0                         |    | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10100 | I | A constant push on the button 60S3 or Master controller will result in Emergency brake |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10101 | A | Press and hold down the master controller for about 2s                                 |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10102 | R | Lamp 60H1 is OFF                                                                       |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10103 | R | No sound from buzzer                                                                   |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10104 | A | Release the master controller                                                          |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                                   |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10106 | R | After 2.5 seconds buzzer starts beeping                                                |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10107 | R | After 5 seconds, emergency brake is applied                                            | DM | OK |   | Celiwe Sokhela - 491462 | Train |
| 10108 | R | Verify on the DDU screen that the emergency brake applied by Deadman indication is ON  |    | OK |   | Celiwe Sokhela - 491462 | Train |

|       |   |                                                                                    |    |    |   |                         |       |
|-------|---|------------------------------------------------------------------------------------|----|----|---|-------------------------|-------|
| 10109 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelay1 = 1.0                |    | OK | 1 | Celiwe Sokhela - 491462 | Train |
| 10110 | A | Select Driving direction to NEUTRAL and FORWARD again to reset the emergency brake |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10111 | R | Read Defined Variable [TT]<br>(MPU1)BCU2_TINeb = 0.0                               |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10112 | A | Press down the Master controller and hold                                          |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10113 | R | After 45s, emergency brake is applied                                              | DM | OK |   | Celiwe Sokhela - 491462 | Train |
| 10114 | R | Verify on the DDU that the Emergency brake by Deadman indication is ON             |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10115 | R | Read Defined Variable [TT]<br>(MPU1)li_dsd_tc2ebdeadmanrelay1 = 0.0                |    | OK | 0 | Celiwe Sokhela - 491462 | Train |
| 10116 | A | Release the Master controller                                                      |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10117 | A | Select the driving direction to NEUTRAL position                                   |    | OK |   | Celiwe Sokhela - 491462 | Train |
| 10118 | I | End of test                                                                        |    | OK |   | Celiwe Sokhela - 491462 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 21 – Rescue Mode and Emergency Disconnection

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### 21.3 Instructions list

### 21.3.1 027\_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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10002 | I    | Initial Conditions                                                                  |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10003 | I    | Train in Normal mode with LV ready                                                  |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10004 | I    | Emergency brake is applied due to no direction selected on Train                    |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10005 | I    | The Blue button 27S5 must be released in TC1 and TC2                                |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10006 | I    | Start of Test                                                                       |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10007 | I    | Back-up Mode TC1                                                                    |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10008 | A    | Put the switch 27S1 in BACKUP position                                              |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10009 | R    | The TCMS is not available on the DDU screen                                         |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10010 | R    | Lamp 27H2 is ON                                                                     |  | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10011 | A    | Timer 60.0 S                                                                        |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10012 | R    | Both pantographs are raised                                                         |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10013 | R    | Both HSCBs are closed                                                               |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10014 | R    | Both ACUs are operational, sound can be heard from outside the train                |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10015 | R    | All four traction units are in operation, sound can be heard from outside the train |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10016 | R    | There is a gradual increase in the main pipe pressure                               |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10017 | R    | HVAC units are operational in all cars                                              |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |

|       |   |                                                               |  |    |  |                          |       |
|-------|---|---------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10018 | R | Emergency lighting is ON in all cars                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10019 | I | Emergency Disconnection TC1                                   |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10020 | A | Push the button 27S5 to disconnect pantographs and open HSCBs |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10021 | R | Both pantographs are lower and HSCBs are open                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10022 | A | Release the button 27S5                                       |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10023 | I | Traction authorization TC1                                    |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10024 | A | Put the direction selector switch in FORWARD position         |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10025 | R | TA is authorized                                              |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10026 | R | Lamp 31H1 is ON on the alarm module                           |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10027 | A | Put the direction selector switch in NEUTRAL position         |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10028 | R | TA is not authorized                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10029 | R | Lamp 31H1 is OFF on the alarm module                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10030 | I | Doors Operation TC1                                           |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10031 | A | Press the auth button 50S5 to open left doors                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10032 | R | Check visually that all left doors are open                   |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10033 | A | Press the auth button 50S6 to open right doors                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10034 | R | Check visually that all right doors are open                  |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10035 | A | Press the button 50S3 to close all the left doors             |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10036 | R | Check visually that all left doors are closed                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10037 | A | Press the button 50S4 to close all right doors                |  | OK |  | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                                  |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10038 | R | Check visually that all right doors are closed                                                                   |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10039 | I | Emergency Brake TC1                                                                                              |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10040 | A | Put the direction selector switch in FORWARD position                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10041 | A | Apply emergency brake using the red button 44S1                                                                  |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10042 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10043 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10044 | A | Release the emergency brake button 44S1                                                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10045 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10046 | A | Apply emergency brake using by putting the Master Controller in Emergency brake position                         |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10047 | R | Emergency brake is applied, lamp 44H4 is ON                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10048 | A | Put the Master controller in OFF position                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10049 | A | Put the direction selector switch in NEUTRAL position                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10050 | A | Switch OFF the train by putting the switch 18S1 in OFF position                                                  |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10051 | A | Remove active cab on TC1                                                                                         |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10052 | I | Back-up Mode TC2                                                                                                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10053 | R | Train is OFF                                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10054 | A | Active Cab on TC2                                                                                                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10055 | A | Switch ON the train using battery contactor 18S1                                                                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                     |                                                                                   |    |  |                          |       |
|-------|---|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|--|--------------------------|-------|
| 10056 | R | Train start-up in Normal mode, the TCMS is available on the DDU screen              |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10057 | A | Put the backup mode switch 27S1 in BACKUP position                                  |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10058 | R | The TCMS is no longer available on the DDU screen                                   |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10059 | R | Lamp 27H2 is ON                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10060 | A | Timer 60.0 S                                                                        |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10061 | R | Both pantographs are raised                                                         |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10062 | R | Both HSCBs are closed                                                               |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10063 | R | Both ACUs are operational, sound can be heard from outside the train                |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10064 | R | All four traction units are in operation, sound can be heard from outside the train |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10065 | R | There is a gradual increase in the main pipe pressure                               |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10066 | R | HVAC units are operational in all cars                                              |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10067 | R | Emergency lighting is ON in all cars                                                |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10068 | I | Traction authorization TC2                                                          |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10069 | A | Put the direction selector switch in FORWARD position                               |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10070 | R | TA is authorized                                                                    |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10071 | R | Lamp 31H1 is "ON" on the alarm module                                               |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10072 | R | Relay 31K1 and 31K2 are energized                                                   |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10073 | A | Put the direction selector switch in NEUTRAL position                               |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10074 | R | TA is not authorized                                                                |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10075 | R | Lamp 31H1 is OFF on the alarm module                                                |                                                                                   | OK |  | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                         |  |    |  |                          |       |
|-------|---|---------------------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10076 | R | Relay 31K1 and 31K2 are de-energized                                                                    |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10077 | I | Doors Operation TC2                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10078 | A | Press the auth button 50S5 to open left doors                                                           |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10079 | R | Check visually that all left doors are open                                                             |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10080 | A | Press the auth button 50S6 to open right doors                                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10081 | R | Check visually that all right doors are open                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10082 | A | Press the button 50S3 to close all the left doors                                                       |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10083 | A | Put the direction selector switch in FORWARD position                                                   |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10084 | R | Check visually that all left doors are closed                                                           |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10085 | A | Press the button 50S4 to close all right doors                                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10086 | R | Check visually that all right doors are closed                                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10087 | I | Emergency Brake TC2                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10088 | A | Put the direction selector switch in NEUTRAL and again in FORWARD position to reset the emergency brake |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10089 | A | Apply emergency brake using the red button 44S1                                                         |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10090 | R | Verify the pressure of the brake cylinder on the pneumatic gauge on the driver's desk                   |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10091 | R | Release the emergency brake button 44S1                                                                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10092 | A | Apply emergency brake using by putting the Master controller in Emergency brake position                |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10093 | R | Emergency brake is applied, lamp 44H4 is ON                                                             |  | OK |  | Nokuzola Mdluli - 491469 | Train |

|       |   |                                                                                                                  |  |    |  |                          |       |
|-------|---|------------------------------------------------------------------------------------------------------------------|--|----|--|--------------------------|-------|
| 10094 | A | Put the Master controller in OFF position                                                                        |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10095 | R | Emergency brake is applied                                                                                       |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10096 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position to reset the emergency brake |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10097 | I | Emergency Disconnection TC2                                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10098 | A | Push the button 27S5 to disconnect pantographs and open HSCBs                                                    |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10099 | R | Both pantographs are lower and HSCBs are open                                                                    |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10100 | A | Release the button 27S5                                                                                          |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10101 | A | Put the direction selector switch in NEUTRAL position                                                            |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10102 | A | Switch OFF the train by putting the switch 18S1 in OFF position                                                  |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10103 | R | Train is OFF                                                                                                     |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10104 | A | Restart the train in Normal mode                                                                                 |  | OK |  | Nokuzola Mdluli - 491469 | Train |
| 10105 | I | End of Test                                                                                                      |  | OK |  | Nokuzola Mdluli - 491469 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 22 – ERTMS

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### 22.3 Instructions list

### 22.3.1 062\_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            | 89260420160520001805 | Alleta Sekgololo - 417407 | Train   |
| 10008 | R    | Serial number for sim card installed on MT2<br>Result Min : 99999<= x ()                                          |                                                                                     | OK            | 89260420160520001806 | 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            |                      | Celiwe Sokhela - 491462   | Train   |
| 10011 | R    | Static Test is complete                                                                                           |                                                                                     | OK            |                      | Celiwe Sokhela - 491462   | 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 bypassed in LV1 cubicle on TC1 or TC2 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10018 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr1 = 1.0                                           |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10019 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr2 = 1.0                                           |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10020 | R | ERTMS bypass led 62H1 is "ON" on alarm module                                                               |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10021 | R | ERTMS HMI is OFF on TC1                                                                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10022 | R | ERTMS EVC unit is OFF                                                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10023 | R | The cold movement detector is ON                                                                            |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10024 | A | Put the direction selector switch in FORWARD position                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10025 | A | Put the Master controller in EMERGENCY BRAKE position                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10026 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 1.0                                                        |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10027 | A | Put Master controller in OFF position                                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10028 | A | Put the direction selector switch in NEUTRAL position and again in FORWARD position                         |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10029 | R | Read Defined Variable [TT]<br>UBK_EmgcyBrkApId = 0.0                                                        |  | OK | 0 | Celiwe Sokhela - 491462   | Train |
| 10030 | A | Put the direction selector switch in NEUTRAL position                                                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10031 | A | Put ERTMS isolation switch 62S1 in NORMAL position                                                          |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10032 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr1 = 0.0                                           |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10033 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_tc1ertmsbypassr2 = 0.0                                           |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10034 | R | ERTMS bypass led 62H1 is OFF on alarm module                                                                |  | OK |   | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                              |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10035 | R | ERTMS HMI is ON in TC1                                                       |  | OK |   | Alleta Sekgololo - 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]<br>(MPU1)li_ets_m2ertmsdc = 0.0                   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmscb = 0.0                   |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)li_ets_m2ertmstemp = 0.0                 |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(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]<br>(MPU1)li_ets_m2ertmstemp = 1.0                 |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10050 | R | Read Defined Variable [TT]<br>(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] (MPU1)li_ets_m2ertmsdcdc = 1.0                    |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10056 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmstemp = 1.0                    |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10057 | I | 110v/24v converters                                                          |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10058 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10059 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10060 | A | Remove one DC/DC power supply                                                |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10061 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10062 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10063 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmsdcdc = 0.0                    |  | OK | 0 | Alleta Sekgololo - 417407 | Train |
| 10064 | A | Open circuit breaker S01 on ERTMS - 62A1 module                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10065 | A | In M2 car, open the circuit breaker 25Q6                                     |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10066 | A | Put back the DC/DC power supply                                              |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10067 | I | INTERNAL CIRCUIT BREAKERS                                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10068 | A | In M2 car, close the circuit breaker 25Q6                                    |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10069 | A | Close circuit breaker S01 on ERTMS - 62A1 module                             |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10070 | A | Open circuit breaker F01 and close all other circuit breakers from F02 - F20 |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10071 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 0.0                      |  | OK | 0 | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                        |  |    |   |                           |       |
|-------|---|------------------------------------------------------------------------|--|----|---|---------------------------|-------|
| 10072 | A | Close circuit breaker F01 on ERTMS - 62A1 module                       |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10073 | R | Read Defined Variable [TT] (MPU1)li_ets_m2ertmscb = 1.0                |  | OK | 1 | Alleta Sekgololo - 417407 | Train |
| 10074 | A | Open circuit breaker S01 on ERTMS - 62A1 module                        |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10075 | R | ERTMS EVC unit is OFF                                                  |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10076 | A | Normalize everything inside LV4 and leave all circuit breakers closed. |  | OK |   | Alleta Sekgololo - 417407 | Train |
| 10077 | I | End of Test                                                            |  | OK |   | Alleta Sekgololo - 417407 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 23 – On-board train data recorder

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### 23.3 Instructions list

### 23.3.1 061\_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            |              | Sqiniseko Xulu - 493646 | Train   |
| 10002 | I    | Initial Conditions                                                                                 |                                                                                   | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10003 | I    | Software must be updated in the OTDR with the latest baseline following below procedure            |  | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10004 | I    | Software must be updated in the CPM according to the latest baseline following the below procedure |  | OK            |              | Sqiniseko Xulu - 493646 | Train   |
| 10005 | I    | Train should be OFF                                                                                |                                                                                   | OK            |              | Sqiniseko Xulu - 493646 | 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 specific trainset folder. |  | OK |  | Mvelo Mthembu - 425564 | Train |
| 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>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 24 – External lights and Signaling

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### 24.3 Instructions list

### 24.3.1 072\_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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10008 | I    | Washer tank is empty                                                      |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10009 | R    | The IOS for low level on water tank appears on the Driver's event list    |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | 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            |              | Nokuzola Mdluli - 491469 | Train   |
| 10014 | I    | This test is to verify that the Wiper is centred                          |  | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10015 | A    | Put the wiper switch on Wash position                                     |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10016 | R    | Water is spraying on the windscreen; the wiper is cleaning the windscreen |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |
| 10017 | A    | Put the wiper switch to intermittent position                             |                                                                                     | OK            |              | Nokuzola Mdluli - 491469 | Train   |

|       |   |                                                                                                                                         |                                                                                   |    |   |                          |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|--------------------------|-------|
| 10018 | R | The wiper is operating properly on intermittent position                                                                                |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10019 | A | Put the wiper switch to low speed position                                                                                              |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10020 | R | The wiper is operating properly on low speed                                                                                            |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10021 | A | Put the wiper switch to high speed position                                                                                             |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10022 | R | Verify that the wiper does not lie too much on the left or right                                                                        |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10023 | A | Verify that the area wiped is at least as shown in the image attached                                                                   |  | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10024 | A | Put the swiper switch on OFF position                                                                                                   |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | Train |
| 10025 | R | Wiper stops, no water is spraying on windscreen                                                                                         |                                                                                   | OK |   | Nokuzola Mdluli - 491469 | 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] (MPU1)Li_SGL_Tc1LeftMirror = 1.0                                                                             |                                                                                   | OK | 1 | Sqiniseko Xulu - 493646  | Train |
| 10032 | R | Read Defined Variable [TT] (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 |   | Sqiniseko Xulu - 493646  | 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 - 493646 | Train |
| 10039 | A | Press the DOOR AUTH right button 50S6                                                                                                   |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10040 | A | Turn the switch 70S10 to the right to open the right mirror                                                                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10041 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                          |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10042 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 1.0                                                                         |  | OK | 1 | Sqiniseko Xulu - 493646 | Train |
| 10043 | 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 |   | Sqiniseko Xulu - 493646 | Train |
| 10044 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10045 | A | Press 50S4 right door close button                                                                                                      |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10046 | R | The mirror is properly closed                                                                                                           |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10047 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1LeftMirror = 0.0                                                                          |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc1RightMirror = 0.0                                                                         |  | OK | 0 | Sqiniseko Xulu - 493646 | Train |
| 10049 | A | Press the DOOR AUTH left button 50S5                                                                                                    |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10050 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror = 1.0                                                                                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10051 | R | Left mirror is open                                                                                                                     |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10052 | A | Force [TT] (MPU1)lo_sgl_tc1leftmirror = 0.0                                                                                             |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10053 | R | Left mirror closes                                                                                                                      |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 10054 | A | Press the DOOR AUTH right button 50S6                                                                                                   |  | OK |   | Sqiniseko Xulu - 493646 | Train |

|       |   |                                                                                |                                                                                     |    |  |                         |       |
|-------|---|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10055 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror = 1.0                                   |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10056 | R | Right mirror opens                                                             |                                                                                     | OK |  | Sqiniseko Xulu - 493646 | Train |
| 10057 | A | Force [TT] (MPU1)lo_sgl_tc1rightmirror = 0.0                                   |                                                                                     | OK |  | Sqiniseko Xulu - 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 | Sqiniseko Xulu - 493646 | 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 working properly                                       |  | OK |   | Sqiniseko Xulu - 493646 | Train |
| 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 |   | Sqiniseko Xulu - 493646 | 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 -<br>493646 | Train |
| 10113 | R | Read Defined Variable [TT]<br>(MPU1)Li_SGL_Tc2RightMirror = 1.0                                                                         |  | OK | 1 | Sqiniseko Xulu -<br>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 |   | Sqiniseko Xulu -<br>493646 | Train |
| 10115 | R | Verify that there is no leak on the mirror's pneumatic piping                                                                           |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10116 | A | Press 50S4 right door close button                                                                                                      |  | OK |   | Sqiniseko Xulu -<br>493646 | Train |
| 10117 | R | The mirror is properly closed                                                                                                           |  | OK |   | Sqiniseko Xulu -<br>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 |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 25 – Train Ground Communication

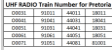
---

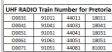
### 25.3 Instructions list

### 25.3.1 063\_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            |                      | Alleta Sekgololo - 417407 | Train   |
| 10002 | I    | GSMR - Functional Test TC1                                                                                                   |      | OK            |                      | Alleta Sekgololo - 417407 | 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            | 89260420160520003682 | Alleta Sekgololo - 417407 | Train   |
| 10004 | A    | Insert the SIM card into the GSMR Radio                                                                                      |      | OK            |                      | Alleta Sekgololo - 417407 | 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            |                      | Alleta Sekgololo - 417407 | Train   |
| 10006 | A    | On the GSMR HMI, verify radio is not faulty                                                                                  |      | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10007 | A    | Active cab in TC1                                                                                                            |      | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10008 | I    | DDU-HMI Connection                                                                                                           |      | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10009 | A    | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                           |      | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10010 | R    | The time is the same (allowable difference of <10s)                                                                          |      | OK            |                      | Alleta Sekgololo - 417407 | Train   |
| 10011 | I    | PACIS-HMI Connection                                                                                                         |      | OK            |                      | Celiwe Sokhela - 491462   | Train   |
| 10012 | A    | Lift the GSMR handset                                                                                                        |      | OK            |                      | Celiwe Sokhela - 491462   | Train   |
| 10013 | A    | Press the PA button on the GSMR HMI                                                                                          |      | OK            |                      | Celiwe Sokhela - 491462   | Train   |
| 10014 | R    | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                |      | OK            |                      | Celiwe Sokhela - 491462   | Train   |
| 10015 | R    | The PA indication alarm sounds in all cars                                                                                   |      | OK            |                      | Celiwe Sokhela - 491462   | Train   |

|       |   |                                                                                                                                                |                                                                                   |    |                      |                           |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|----------------------|---------------------------|-------|
| 10016 | A | Press the PTT on the handset and speak into the handset microphone                                                                             |                                                                                   | OK |                      | Celiwe Sokhela - 491462   | Train |
| 10017 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                   | OK |                      | Celiwe Sokhela - 491462   | Train |
| 10018 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                   | OK |                      | Celiwe Sokhela - 491462   | Train |
| 10019 | I | UHF Radio Test TC1                                                                                                                             |                                                                                   | OK |                      | Alleta Sekgololo - 417407 | Train |
| 10020 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |                      | Alleta Sekgololo - 417407 | Train |
| 10021 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                   | OK |                      | Alleta Sekgololo - 417407 | 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 |                      | Alleta Sekgololo - 417407 | Train |
| 10023 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                   | OK |                      | Alleta Sekgololo - 417407 | Train |
| 10024 | I | GSMR - Functional Test TC2                                                                                                                     |                                                                                   | OK |                      | Alleta Sekgololo - 417407 | Train |
| 10025 | A | Active Cab in TC2                                                                                                                              |                                                                                   | OK |                      | Alleta Sekgololo - 417407 | 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 | 89260420160520003683 | Alleta Sekgololo - 417407 | Train |
| 10027 | A | Insert the SIM card into the GSMR Radio                                                                                                        |                                                                                   | OK |                      | Alleta Sekgololo - 417407 | 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 |                      | Alleta Sekgololo - 417407 | Train |
| 10029 | A | On the GSMR HMI, verify radio is not faulty                                                                                                    |                                                                                   | OK |                      | Alleta Sekgololo - 417407 | Train |
| 10030 | I | DDU-HMI Connection                                                                                                                             |                                                                                   | OK |                      | Alleta Sekgololo - 417407 | Train |
| 10031 | A | Check if TCMS DDU and GSMR-HMI times are automatically synchronised - do not manually set the time                                             |                                                                                   | OK |                      | Alleta Sekgololo - 417407 | Train |

|       |   |                                                                                                                                                |                                                                                     |    |  |                           |       |
|-------|---|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|---------------------------|-------|
| 10032 | R | The time is the same (allowable difference of <10s)                                                                                            |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10033 | I | PACIS-HMI Connection                                                                                                                           |                                                                                     | OK |  | Celiwe Sokhela - 491462   | Train |
| 10034 | A | Lift the GSMR handset                                                                                                                          |                                                                                     | OK |  | Celiwe Sokhela - 491462   | Train |
| 10035 | A | Press the PA button on the GSMR HMI                                                                                                            |                                                                                     | OK |  | Celiwe Sokhela - 491462   | Train |
| 10036 | R | On the GSMR module PAI card, the Red and Ack LEDs light green                                                                                  |                                                                                     | OK |  | Celiwe Sokhela - 491462   | Train |
| 10037 | R | The PA indication alarm sounds in all cars                                                                                                     |                                                                                     | OK |  | Celiwe Sokhela - 491462   | Train |
| 10038 | A | Press the PTT on the handset and speak into the handset microphone                                                                             |                                                                                     | OK |  | Celiwe Sokhela - 491462   | Train |
| 10039 | R | Text displayed on the HMI: "Talk!"                                                                                                             |                                                                                     | OK |  | Celiwe Sokhela - 491462   | Train |
| 10040 | R | Your voice can be heard clearly in all the cars                                                                                                |                                                                                     | OK |  | Celiwe Sokhela - 491462   | Train |
| 10041 | I | UHF Radio Test TC2                                                                                                                             |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |
| 10042 | A | Enter each mission number below on the attached picture and press select on the UHF handheld                                                   |  | OK |  | Alleta Sekgololo - 417407 | Train |
| 10043 | R | The Radio displays the selected number eg "D 9104" and the network bars are visible                                                            |                                                                                     | OK |  | Alleta Sekgololo - 417407 | 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 |  | Alleta Sekgololo - 417407 | Train |
| 10045 | R | All mission numbers on the above picture are tested ok                                                                                         |                                                                                     | OK |  | Alleta Sekgololo - 417407 | Train |

### 25.3.2 064\_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            |              | Alleta Sekgololo - 417407 | Train   |
| 10002 | I    | Software upload                                                                                                                                                                                                                                                              |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10003 | I    | Use the below procedure to install the software on the Netbox(M1)                                                                                                                                                                                                            |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | 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            |              | Alleta Sekgololo - 417407 | Train   |
| 10005 | I    | Netbox configuration check                                                                                                                                                                                                                                                   |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10006 | A    | Perform the attached procedure to configure the Netbox (M1)                                                                                                                                                                                                                  |  | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10007 | R    | The Netbox is configured correctly                                                                                                                                                                                                                                           |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |
| 10008 | R    | The time and date on the DDU is correct - if not restart the train and verify again                                                                                                                                                                                          |                                                                                     | OK            |              | Alleta Sekgololo - 417407 | Train   |

## Section 26 – Traction Converter

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### 26.3 Instructions list

### 26.3.1 033\_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            |              | Celiwe Sokhela - 491462 | Train   |
| 10002 | I    | Initial Conditions                                                                                |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10003 | I    | Train is prepared with High voltage                                                               |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10004 | I    | Master controller is in OFF position                                                              |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10005 | I    | All traction units are in black colour on the DDU maintenance screen                              |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10006 | I    | Start of Test                                                                                     |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10007 | A    | Put the driving selector switch in FORWARD position                                               |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10008 | R    | Check on the DDU that all traction units are in FWD position                                      |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10009 | A    | Put the driving selector switch in REVERSE position                                               |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10010 | R    | Check on the DDU that all traction units are in REV position                                      |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10011 | A    | Put the driving selector switch in NEUTRAL position                                               |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10012 | I    | Traction Fault and reset                                                                          |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10013 | A    | Open HSCB using button 22S12                                                                      |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10014 | A    | Open the circuit breaker 33Q3 in M4 car                                                           |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10015 | R    | Traction unit of M4 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10016 | A    | Close the circuit breaker 33Q3                                                                    |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |
| 10017 | A    | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK            |              | Celiwe Sokhela - 491462 | Train   |

|       |   |                                                                                                   |                                                                                     |    |  |                         |       |
|-------|---|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|--|-------------------------|-------|
| 10018 | R | Traction unit for M4 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10019 | A | Open the circuit breaker 33Q3 in M1 car                                                           |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10020 | R | Traction unit of M1 appear in fault on the DDU and an IOS is generated about loss of traction 25% |    | OK |  | Celiwe Sokhela - 491462 | Train |
| 10021 | A | Close circuit breaker 33Q3 in M1 car                                                              |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10022 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10023 | R | Traction unit for M1 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10024 | A | Open the circuit breaker 33Q3 in M2 car                                                           |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10025 | R | Traction unit of M2 appear in fault on the DDU and an IOS is generated about loss of traction 25% |   | OK |  | Celiwe Sokhela - 491462 | Train |
| 10026 | A | Close the circuit breaker 33Q3 in M2 car                                                          |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10027 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10028 | R | Traction unit for M2 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10029 | A | Open the circuit breaker 33Q3 in M3 car                                                           |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10030 | R | Traction unit of M3 appear in fault on the DDU and an IOS is generated about loss of traction 25% |  | OK |  | Celiwe Sokhela - 491462 | Train |
| 10031 | A | Close the circuit breaker 33Q3 in M3 car                                                          |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10032 | A | Press the DDU virtual button RESET TRACTION FAULTS                                                |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |
| 10033 | R | Traction unit for M3 is back in service, the IOS generated above has disappeared                  |                                                                                     | OK |  | Celiwe Sokhela - 491462 | Train |

|       |   |                                |  |    |  |                            |       |
|-------|---|--------------------------------|--|----|--|----------------------------|-------|
| 10034 | A | Close HSCBs using button 22S11 |  | OK |  | Celiwe Sokhela -<br>491462 | Train |
| 10035 | I | End of Test                    |  | OK |  | Celiwe Sokhela -<br>491462 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 27 – CCTV Video Information

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### 27.3 Instructions list

### 27.3.1 055\_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] (MPU1)Li_CTV_Tc1CctvEventPbR1 = 1.0 |                                                                                     | OK            | 1            | Nokuzola Mdluli - 491469 | Train   |
| 10006 | R    | Read Defined Variable [TT] (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] (MPU1)Li_CTV_Tc1CctvEventPbR1 = 0.0 |                                                                                     | OK            | 0            | Nokuzola Mdluli - 491469 | Train   |
| 10010 | R    | Read Defined Variable [TT] (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 |  | Mbavhalelo Funyufunyu - 484649 | 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 |  | Mbavhalelo Funyufunyu - 484649 | Train |
| 10039 | R | The TC1 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                     | OK |  | Mbavhalelo Funyufunyu - 484649 | Train |
| 10040 | R | The TC2 NVR is locked, and the HD LED is OFF                                                                                                                                                                                                     |                                                                                     | OK |  | Mbavhalelo Funyufunyu - 484649 | Train |
| 10041 | A | Using the procedure attached, confirm that both NVRs are recording video data                                                                                                                                                                    |  | OK |  | Mbavhalelo Funyufunyu - 484649 | Train |
| 10042 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR1                                                                                                                                                   |                                                                                     | OK |  | Mbavhalelo Funyufunyu - 484649 | Train |
| 10043 | R | save the screenshot as TSXX_NVR1                                                                                                                                                                                                                 |                                                                                     | OK |  | Mbavhalelo Funyufunyu - 484649 | Train |
| 10044 | A | Take a screenshot of the CCTV console live stream to indicate the recorder is working for NVR2                                                                                                                                                   |                                                                                     | OK |  | Mbavhalelo Funyufunyu - 484649 | Train |
| 10045 | R | Save the screenshot as TSXX_NVR2                                                                                                                                                                                                                 |                                                                                     | OK |  | Mbavhalelo Funyufunyu - 484649 | Train |



|                                                                               |                                                    |                             |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|
| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
|-------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------|

## Section 28 – PACIS

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### 28.3 Instructions list

### 28.3.1 054\_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            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10002 | I    | Software Upload                                                                                                                                                                         |                                                                                     | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10003 | A    |                                                                                                                                                                                         |    | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10004 | A    |                                                                                                                                                                                         |    | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10005 | A    |                                                                                                                                                                                         |    | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10006 | R    | Verify on the DDU, referring to the baseline spreadsheet, that all Pacis devices are updated with the latest software versions                                                          |                                                                                     | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | Train   |
| 10007 | I    | Camera Orientation                                                                                                                                                                      |                                                                                     | OK            |              | Mbavhalelo<br>Funyufunyu - 484649 | 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            |              | Mbavhalelo<br>Funyufunyu - 484649 | 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            |              | Walter Sigudla -<br>486333        | Train   |
| 10010 | A    | Please note any cameras showing green strips or unclear images should be updated settings using the attached procedure                                                                  |  | OK            |              | Walter Sigudla -<br>486333        | Train   |
| 10011 | R    | The Saloon cameras on TC1 have been adjusted according to image above.                                                                                                                  |                                                                                     | OK            |              | Walter Sigudla -<br>486333        | Train   |
| 10012 | R    | The Saloon cameras on M4 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Walter Sigudla -<br>486333        | Train   |
| 10013 | R    | The Saloon cameras on M1 have been adjusted according to image above.                                                                                                                   |                                                                                     | OK            |              | Walter Sigudla -<br>486333        | Train   |

|       |   |                                                                                         |  |    |   |                                |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|--------------------------------|-------|
| 10014 | R | The Saloon cameras on M2 have been adjusted according to image above.                   |  | OK |   | Walter Sigudla - 486333        | Train |
| 10015 | R | The Saloon cameras on M3 have been adjusted according to image above.                   |  | OK |   | Walter Sigudla - 486333        | Train |
| 10016 | R | The Saloon cameras on TC2 have been adjusted according to image above.                  |  | OK |   | Walter Sigudla - 486333        | Train |
| 10017 | I | Mission Number Display                                                                  |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10018 | A | Active Cab in TC1                                                                       |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10019 | A | Login as a driver, ID: 70787878                                                         |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10020 | A | Enter the mission 8100                                                                  |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10021 | R | Check that the TC1 and TC2 front external displays are showing the mission number 8100. |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10022 | I | Public Announcements TC1                                                                |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10023 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                              |  | OK | 0 | Mbavhalelo Funyufunyu - 484649 | Train |
| 10024 | R | Read Defined Variable [TT] (MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                              |  | OK | 0 | Mbavhalelo Funyufunyu - 484649 | Train |
| 10025 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10026 | R | Green lamp 54H2 is ON                                                                   |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10027 | R | A beep sound can be heard in all saloon speakers                                        |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10028 | R | On Driver's screen (Home Page), PA activation message is displayed                      |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10029 | A | Press the button 54S4 and hold it while talking via the microphone                      |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10030 | I | It is necessary to go to each and every speaker to verify sound is coming out           |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |
| 10031 | R | Announcement can be heard in saloon speakers of TC1                                     |  | OK |   | Mbavhalelo Funyufunyu - 484649 | Train |

|       |   |                                                                                                                                                                |                                                                                     |    |   |                                   |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------------------|-------|
| 10032 | R | Announcement can be heard in saloon speakers of M4                                                                                                             |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10033 | R | Announcement can be heard in saloon speakers of M1                                                                                                             |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10034 | R | Announcement can be heard in saloon speakers of M2                                                                                                             |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10035 | R | Announcement can be heard in saloon speakers of M3                                                                                                             |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10036 | R | Announcement can be heard in saloon speakers of TC2                                                                                                            |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10037 | A | Release the button 54S4                                                                                                                                        |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10038 | A | Talk on the microphone                                                                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10039 | R | No sound can be heard in all cars                                                                                                                              |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10040 | A | Pulse the switch 54S1 to the right to de-activate PA announcement                                                                                              |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10041 | R | Green lamp 54H2 is OFF                                                                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | 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 |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10043 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPaPbR1 = 1.0                                                                                                  |                                                                                     | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10044 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPaPbR2 = 1.0                                                                                                  |                                                                                     | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10045 | R | Green lamp 54H2 is ON                                                                                                                                          |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10046 | R | PA announcement is activated                                                                                                                                   |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10047 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                             |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10048 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPaPbR1 = 0.0                                                                                                  |                                                                                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10049 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPaPbR2 = 0.0                                                                                                  |                                                                                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                         |  |    |   |                                   |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|-----------------------------------|-------|
| 10050 | R | Green lamp 54H2 is OFF                                                                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10051 | I | PA announcement is de-activated                                                         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10052 | A | Press the button 54S4 and hold it while talking on the microphone                       |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10053 | R | Sound cannot be heard in all speakers                                                   |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10054 | A | Release the button 54S4                                                                 |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10055 | A | Remove active cab on TC1                                                                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10056 | A | Pulse the switch 54S1 to the right to activate PA announcement                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10057 | R | Green lamp 54H2 is OFF                                                                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10058 | R | No PA announcement activation showing on the Driver's screen                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10059 | I | Cab to Cab Communication TC1                                                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10060 | I | It is not necessary to have an active cab in order to initiate cab to cab communication |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10061 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                     |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10062 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                     |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10063 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10064 | R | Green lamp 54H1 is blinking                                                             |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10065 | R | A beep can be heard in TC2 cab                                                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10066 | R | Green lamp 54H1 is blinking in TC2 cab                                                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10067 | R | Cab to Cab communication is Active on DDU driver's screen                               |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10068 | A | Accept Cab to cab communication request in TC2 by pulsing switch 54S1 to the left       |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                                                                                                |                                                                                   |    |   |                                   |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----|---|-----------------------------------|-------|
| 10069 | R | Green lamp 54H1 is ON (steady) on TC2                                                                                                                          |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10070 | A | Press and hold button 54S4 to initiate communication in TC1 and talk on the microphone                                                                         |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10071 | R | Sound can be heard on TC2 cab speakers                                                                                                                         |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10072 | A | Press and hold button 54S4 in TC2 and talk on the microphone                                                                                                   |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10073 | R | Sound can be heard on TC1 cab speakers                                                                                                                         |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10074 | A | Pulse the switch 54S1 to the left on TC1 to de-activate cab to cab communication                                                                               |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10075 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | 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 |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10077 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR1 = 1.0                                                                                            |                                                                                   | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10078 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 1.0                                                                                            |                                                                                   | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10079 | R | Cab-Cab is activated                                                                                                                                           |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10080 | A | On the driver's screen select the "Public Address" virtual button to end communication                                                                         |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10081 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                            |                                                                                   | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10082 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduCabToCabPbR2 = 0.0                                                                                            |                                                                                   | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10083 | R | Cab-Cab is de-activated                                                                                                                                        |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10084 | I | Cab to Cab Communication TC2                                                                                                                                   |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10085 | R | Read Defined Variable [TT]                                                                                                                                     |                                                                                   | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                                                                                                |                                                                                     |    |   |                                   |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------------------|-------|
|       |   | (MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                                                                                                                          |                                                                                     |    |   |                                   |       |
| 10086 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                                                                                            |                                                                                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10087 | A | Pulse the switch 54S1 to the left to activate cab to cab communication                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10088 | R | Green lamp 54H1 is blinking                                                                                                                                    |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10089 | R | A beep can be heard in TC1 cab                                                                                                                                 |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10090 | R | Green lamp 54H1 is blinking in TC1 cab                                                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10091 | R | Cab to Cab communication is Active on DDU driver's screen                                                                                                      |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10092 | A | Accept Cab to cab communication request in TC1 by pulsing switch 54S1 to the left                                                                              |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10093 | R | Green lamp 54H1 is ON (steady) on TC1                                                                                                                          |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10094 | A | Press and hold button 54S4 to initiate communication in TC2 and talk on the microphone                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10095 | R | Sound can be heard on TC1 cab speakers                                                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10096 | A | Press and hold button 54S4 in TC1 and talk on the microphone                                                                                                   |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10097 | R | Sound can be heard on TC2 cab speakers                                                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10098 | A | Pulse the switch 54S1 to the left on TC2 to de-activate cab to cab communication                                                                               |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10099 | R | Green lamp 54H1 is OFF on both TC1 and TC2                                                                                                                     |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | 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 |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10101 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 1.0                                                                                            |                                                                                     | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10102 | R | Read Defined Variable [TT]                                                                                                                                     |                                                                                     | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                        |                                                                                     |    |   |                                   |       |
|-------|---|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------------------|-------|
|       |   | (MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 1.0                                                  |                                                                                     |    |   |                                   |       |
| 10103 | R | Cab-Cab is activated                                                                   |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10104 | A | On the driver's screen select the "Public Address" virtual button to end communication |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10105 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR1 = 0.0                    |                                                                                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10106 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduCabToCabPbR2 = 0.0                    |                                                                                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10107 | R | Cab-Cab is de-activated                                                                |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10108 | I | Ventilation Rack TC1                                                                   |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10109 | A | Follow the instruction below o how to test the ventilation rack                        |    | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10110 | R | All three fans of the ventilation rack are working                                     |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10111 | I | PEA Functional Test                                                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10112 | I | All PEAs are normalized on Train                                                       |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10113 | I | All doors should be closed                                                             |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10114 | I | Lamp 44H1 is OFF                                                                       |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10115 | I | PEI auto test passed in all cars, only one green led can be seen in all PEIs           |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10116 | A | Active cab on TC1 and login as driver: 70787878                                        |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10117 | I | All Cameras should be working and properly adjusted                                    |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10118 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC1                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10119 | A | Pull the PEA                                                                           |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10120 | R | Lamp 44H1 is ON                                                                        |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                         |  |    |   |                                   |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|-----------------------------------|-------|
| 10121 | R | Read Defined Variable [TT]<br>(MPU1)li_ubk_tc1pealoo = 1.0                              |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10122 | R | "Wait/Talk" lamp is BLINKING ORANGE<br>on PEI                                           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10123 | R | A Beed can be heard in TC1 cab                                                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10124 | R | Button lamp 54S3 is BLINKING                                                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10125 | R | An emergency alarm announcement can<br>be heard in all saloon speakers                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10126 | R | Displays INT1 and INT2 indicate<br>"Passenger Alarm" in all saloon cars                 |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10127 | R | Lateral displays LAT1 and LAT2 indicate<br>"Passenger Alarm" on the affected car        |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10128 | R | A CCTV footage of TC1 camera 1 and 2<br>can be seen on the Driver's screen              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10129 | A | Press the button 54S3 to acknowledge<br>PEA communication request                       |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10130 | A | Press and hold button 54S4 on TC1 and<br>talk on the microphone                         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10131 | R | Message stops broadcasting in all saloon<br>speakers                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10132 | R | The person in the cabin can be heard from<br>the PEI speaker                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10133 | A | Respond by talking back via the PEI                                                     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10134 | R | Communication is established between<br>PEI and Driver cab                              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10135 | A | Press the button 54S3 to end PEA<br>communication                                       |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10136 | A | Reset PEA using switch 44S6                                                             |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10137 | R | PEA is reset and a click sound can be<br>heard while PEA returns to its normal<br>state |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10138 | A | Open and close doors using buttons on<br>driver desk                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                                                                                                 |                                                                                     |    |   |                                   |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|---|-----------------------------------|-------|
| 10139 | R | All doors are closed and in blue colour on DDU                                                                                                                  |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10140 | R | Lamp 44H1 is OFF                                                                                                                                                |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10141 | R | Read Defined Variable [TT]<br>(MPU1)li_ubk_tc1pealop = 0.0                                                                                                      |                                                                                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10142 | R | No CCTV footage showing on Driver's screen                                                                                                                      |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10143 | R | Button lamp 54S3 is OFF                                                                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10144 | R | No message on Pacis displays                                                                                                                                    |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10145 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC1                                                                                                                  |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10146 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                                                                                              |                                                                                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10147 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                                                                                              |                                                                                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10148 | A | Pull the PEA                                                                                                                                                    |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10149 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                                                                                                      |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10150 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | 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 |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10152 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 1.0                                                                                              |                                                                                     | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10153 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 1.0                                                                                              |                                                                                     | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10154 | A | Press and hold button 54S4 on TC1 and talk on the microphone                                                                                                    |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                                         |  |    |   |                                   |       |
|-------|---|-----------------------------------------------------------------------------------------|--|----|---|-----------------------------------|-------|
| 10155 | R | The person in the cabin can be heard from the PEI speaker                               |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10156 | A | Respond by talking back via the PEI                                                     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10157 | R | Communication is stabile between PEI and Driver cab                                     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10158 | A | On the driver's screen select the "Passenger Alarm" virtual button to end communication |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10159 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR1 = 0.0                      |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10160 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc1DduPeiCommPbR2 = 0.0                      |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10161 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC1                                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10162 | A | Pull the PEA                                                                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10163 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                                              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10164 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen                 |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10165 | A | Press the button 54S3 to acknowledge PEA communication request                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10166 | A | Press and hold button 54S4 on TC1 and talk on the microphone                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10167 | R | The person in the cabin can be heard from the PEI speaker                               |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10168 | A | Respond by talking back via the PEI                                                     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10169 | R | Communication is established between PEI and Driver cab                                 |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10170 | A | Press the button 54S3 to end PEA communication                                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10171 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC1                                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                         |  |    |  |                                   |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10172 | A | Pull the PEA                                                            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10173 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10174 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10175 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10176 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10177 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10178 | A | Respond by talking back via the PEI                                     |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10179 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10180 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10181 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC1                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10182 | A | Pull the PEA                                                            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10183 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10184 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10185 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10186 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10187 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10188 | A | Respond by talking back via the PEI                                     |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10189 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                         |  |    |  |                                   |       |
|-------|---|-------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10190 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10191 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC1                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10192 | A | Pull the PEA                                                            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10193 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10194 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10195 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10196 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10197 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10198 | A | Respond by talking back via the PEI                                     |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10199 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10200 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10201 | I | Call for Aid (CFA 54S5) on TC1                                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10202 | A | Press the SOS button 54S5                                               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10203 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10204 | R | No sound can be heard in all saloon speakers                            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10205 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars       |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10206 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC1           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10207 | R | A CCTV footage of TC1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10208 | A | Press the button 54S3 to acknowledge SOS communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10209 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10210 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10211 | A | Respond by talking back via the PEI near 54S5                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10212 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10213 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10214 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M4                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10215 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10216 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10217 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10218 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10219 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10220 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10221 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10222 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10223 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10224 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M4                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10225 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |  |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10226 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10227 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10228 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10229 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10230 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10231 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10232 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10233 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10234 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M4                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10235 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10236 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10237 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10238 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10239 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10240 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10241 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10242 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10243 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |  |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10244 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M4                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10245 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10246 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10247 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10248 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10249 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10250 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10251 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10252 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10253 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10254 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M4                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10255 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10256 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10257 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10258 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10259 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10260 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10261 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------------|-------|
| 10262 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10263 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10264 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M4                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10265 | A | Pull the PEA                                                           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10266 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10267 | R | A CCTV footage of M4 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10268 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10269 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10270 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10271 | A | Respond by talking back via the PEI                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10272 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10273 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10274 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M4StateResetPea = 1.0       |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10275 | A | Reset PEA using switch 44S6                                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10276 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M4StateResetPea = 0.0       |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10277 | R | All M4 PEAs are reset                                                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10278 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M1                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10279 | A | Pull the PEA                                                           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10280 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10281 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10282 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10283 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10284 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10285 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10286 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10287 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10288 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M1                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10289 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10290 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10291 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10292 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10293 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10294 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10295 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10296 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10297 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |  |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10298 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M1                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10299 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10300 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10301 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10302 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10303 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10304 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10305 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10306 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10307 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10308 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M1                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10309 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10310 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10311 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10312 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10313 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10314 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10315 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |  |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10316 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10317 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10318 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M1                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10319 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10320 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10321 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10322 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10323 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10324 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10325 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10326 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10327 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10328 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M1                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10329 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10330 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10331 | R | A CCTV footage of M1 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10332 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10333 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |   |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------------|-------|
| 10334 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10335 | A | Respond by talking back via the PEI                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10336 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10337 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10338 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M1StateResetPea = 1.0       |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10339 | A | Reset PEA using switch 44S6                                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10340 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M1StateResetPea = 0.0       |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10341 | R | All M1 PEAs are reset                                                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10342 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M2                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10343 | A | Pull the PEA                                                           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10344 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10345 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10346 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10347 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10348 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10349 | A | Respond by talking back via the PEI                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10350 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10351 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |  |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10352 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M2                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10353 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10354 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10355 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10356 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10357 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10358 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10359 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10360 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10361 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10362 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M2                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10363 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10364 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10365 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10366 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10367 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10368 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10369 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |  |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10370 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10371 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10372 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M2                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10373 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10374 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10375 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10376 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10377 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10378 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10379 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10380 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10381 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10382 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M2                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10383 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10384 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10385 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10386 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10387 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |   |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|---|-----------------------------------|-------|
| 10388 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10389 | A | Respond by talking back via the PEI                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10390 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10391 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10392 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M2                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10393 | A | Pull the PEA                                                           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10394 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10395 | R | A CCTV footage of M2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10396 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10397 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10398 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10399 | A | Respond by talking back via the PEI                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10400 | R | Communication is established between PEI and Driver cab                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10401 | A | Press the button 54S3 to end PEA communication                         |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10402 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 1.0          |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10403 | A | Reset PEA using switch 44S6                                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10404 | R | Read Defined Variable [TT] (MPU1)Li_UBK_M2StateResetPea = 0.0          |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10405 | R | All M2 PEAs are reset                                                  |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |  |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10406 | I | Passenger Emergency Alarm 1 (PEA 44S11) on M3                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10407 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10408 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10409 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10410 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10411 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10412 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10413 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10414 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10415 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10416 | I | Passenger Emergency Alarm 2 (PEA 44S12) on M3                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10417 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10418 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10419 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10420 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10421 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10422 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10423 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |  |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10424 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10425 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10426 | I | Passenger Emergency Alarm 3 (PEA 44S13) on M3                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10427 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10428 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10429 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10430 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10431 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10432 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10433 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10434 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10435 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10436 | I | Passenger Emergency Alarm 4 (PEA 44S14) on M3                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10437 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10438 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10439 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10440 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10441 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                        |  |    |  |                                   |       |
|-------|---|------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10442 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10443 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10444 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10445 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10446 | I | Passenger Emergency Alarm 5 (PEA 44S15) on M3                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10447 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10448 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10449 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10450 | A | Press the button 54S3 to acknowledge PEA communication request         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10451 | A | Press and hold button 54S4 on TC1 and talk on the microphone           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10452 | R | The person in the cabin can be heard from the PEI speaker              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10453 | A | Respond by talking back via the PEI                                    |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10454 | R | Communication is established between PEI and Driver cab                |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10455 | A | Press the button 54S3 to end PEA communication                         |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10456 | I | Passenger Emergency Alarm 6 (PEA 44S16) on M3                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10457 | A | Pull the PEA                                                           |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10458 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                             |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10459 | R | A CCTV footage of M3 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

|       |   |                                                                         |  |    |   |                                   |       |
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| 10460 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10461 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10462 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10463 | A | Respond by talking back via the PEI                                     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10464 | R | Communication is established between PEI and Driver cab                 |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10465 | A | Press the button 54S3 to end PEA communication                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10466 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M3StateResetPea = 1.0        |  | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10467 | A | Reset PEA using switch 44S6                                             |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10468 | R | Read Defined Variable [TT]<br>(MPU1)Li_UBK_M3StateResetPea = 0.0        |  | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10469 | R | All M3 PEAs are reset                                                   |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10470 | I | Passenger Emergency Alarm 1 (PEA 44S11) on TC2                          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10471 | A | Pull the PEA                                                            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10472 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10473 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10474 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10475 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10476 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10477 | A | Respond by talking back via the PEI                                     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10478 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10479 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10480 | I | Passenger Emergency Alarm 2 (PEA 44S12) on TC2                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10481 | A | Pull the PEA                                                            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10482 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10483 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10484 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10485 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10486 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10487 | A | Respond by talking back via the PEI                                     |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10488 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10489 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10490 | I | Passenger Emergency Alarm 3 (PEA 44S13) on TC2                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10491 | A | Pull the PEA                                                            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10492 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10493 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10494 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10495 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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|-------|---|-------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10496 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10497 | A | Respond by talking back via the PEI                                     |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10498 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10499 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10500 | I | Passenger Emergency Alarm 4 (PEA 44S14) on TC2                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10501 | A | Pull the PEA                                                            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10502 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10503 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10504 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10505 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10506 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10507 | A | Respond by talking back via the PEI                                     |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10508 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10509 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10510 | I | Passenger Emergency Alarm 5 (PEA 44S15) on TC2                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10511 | A | Pull the PEA                                                            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10512 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10513 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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|-------|---|-------------------------------------------------------------------------|--|----|--|-----------------------------------|-------|
| 10514 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10515 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10516 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10517 | A | Respond by talking back via the PEI                                     |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10518 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10519 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10520 | I | Passenger Emergency Alarm 6 (PEA 44S16) on TC2                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10521 | A | Pull the PEA                                                            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10522 | R | "Wait/Talk" lamp is BLINKING ORANGE on PEI                              |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10523 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10524 | A | Press the button 54S3 to acknowledge PEA communication request          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10525 | A | Press and hold button 54S4 on TC1 and talk on the microphone            |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10526 | R | The person in the cabin can be heard from the PEI speaker               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10527 | A | Respond by talking back via the PEI                                     |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10528 | R | Communication is established between PEI and Driver cab                 |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10529 | A | Press the button 54S3 to end PEA communication                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10530 | I | Call for Aid (CFA 54S5) on TC2                                          |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10531 | A | Press the SOS button 54S5                                               |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10532 | R | Button lamp 54S5 is ON                                                  |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10533 | R | No sound can be heard in all saloon speakers                                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10534 | R | Displays INT1 and INT2 indicate "Call for AID" in all saloon cars           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10535 | R | Lateral displays LAT1 and LAT2 indicate "Call for AID" on TC2               |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10536 | R | A CCTV footage of TC2 camera 1 and 2 can be seen on the Driver's screen     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10537 | A | Press the button 54S3 to acknowledge SOS communication request              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10538 | A | Press and hold button 54S4 on TC1 and talk on the microphone                |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10539 | R | The person in the cabin can be heard from the PEI speaker                   |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10540 | A | Respond by talking back via the PEI near 54S5                               |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10541 | R | Communication is established between PEI and Driver cab                     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10542 | A | Press the button 54S3 to end PEA communication                              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10543 | A | Open and close doors left and right doors                                   |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10544 | R | All doors are closed and in blue colour on DDU                              |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10545 | I | PEAs functional Test from TC2 cab                                           |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10546 | I | This is a quick test to verify that all PEAs work and can be reset from TC2 |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10547 | A | Insert Driver's Key and turn to ON position                                 |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10548 | A | Login as Driver using the code 70787878                                     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10549 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 0.0        |  | OK | 0 | Philemon Milani -<br>484650       | Train |
| 10550 | R |                                                                             |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10551 | A | Pull all the PEAs on Train                                                                                                                           |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10552 | R |                                                                                                                                                      |    | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10553 | R | Read Defined Variable [TT]<br>(MPU1)li_dor_tc2alldoorsclosedr1 = 1.0                                                                                 |                                                                                     | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10554 | R |                                                                                                                                                      |    | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10555 | A | Press the button 54S3 to acknowledge<br>PEA communication request, continue to<br>press the button until all but one PEAs<br>have been acknowledged. |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10556 | R | Lamp 44H1 is ON                                                                                                                                      |    | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10557 | R | Read Defined Variable [TT]<br>(MPU1)li_ubk_tc2pealoop = 1.0                                                                                          |                                                                                     | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10558 | A | Press and hold the button 54S4 while<br>talking on the microphone                                                                                    |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10559 | R | The person in the cabin can be heard from<br>the PEI speaker                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10560 | I | It is not necessary to perform step below<br>for all PEAs, one PEA is sufficient                                                                     |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10561 | A | Respond by talking back via the PEI                                                                                                                  |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10562 | R | Communication is established between<br>PEI and Driver cab                                                                                           |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10563 | A | Reset all PEAs at using switch 44S6                                                                                                                  |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10564 | R | All PEAs are reset, and a click sound can<br>be heard while PEA returns to its normal<br>state                                                       |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10565 | A | Open and close doors left and right doors                                                                                                            |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10566 | R | All doors are closed and in blue colour on<br>DDU                                                                                                    |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10567 | R | Lamp 44H1 is OFF                                                                                                                                     |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10568 | R | No message on Pacis displays                                                                                                                         |                                                                                     | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10569 | R | Read Defined Variable [TT]<br>(MPU1)li_ubk_tc2pealoop = 0.0                                                                                          |                                                                                     | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10570 | R | No CCTV footage showing on Driver's screen                                         |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10571 | A | On the Event screen, check that there are no IOS related to doors or PEAs recorded |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10572 | R | After test is completed, the DDU PEA screen should be as shown                     |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10573 | A | Repeat this test for 4 times                                                       |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10574 | R | 1st attempt passed                                                                 |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10575 | R | 2nd attempt passed                                                                 |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10576 | R | 3rd attempt passed                                                                 |                                                                                   | OK |   | Philemon Milani -<br>484650       | Train |
| 10577 | R | 4th attempt passed                                                                 |                                                                                   | OK |   | Philemon Milani -<br>484650       | Train |
| 10578 | I | Public Announcements TC2                                                           |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10579 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                      |                                                                                   | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10580 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                      |                                                                                   | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10581 | A | Pulse the switch 54S1 to the right to activate PA announcement                     |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10582 | R | Green lamp 54H2 is ON                                                              |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10583 | R | A beep sound can be heard in all saloon speakers                                   |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10584 | R | On Driver's screen (Home Page), PA activation message is displayed                 |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10585 | A | Press the button 54S4 and hold it while talking via the microphone                 |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10586 | R | Announcement can be heard in saloon speakers of all cars                           |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10587 | A | Release the button 54S4                                                            |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10588 | A | Talk on the microphone                                                             |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10589 | R | No sound can be heard in all cars                                                  |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10590 | A | Pulse the switch 54S1 to the right to de-activate PA announcement                                                                                           |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10591 | A | Green lamp 54H2 is OFF                                                                                                                                      |  | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | 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 |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10593 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR1 = 1.0                                                                                               |                                                                                   | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10594 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR2 = 1.0                                                                                               |                                                                                   | OK | 1 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10595 | R | Green lamp 54H2 is ON                                                                                                                                       |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10596 | R | PA announcement is activated                                                                                                                                |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10597 | A | On the driver's screen (Home Page) select the "Public Address" virtual button to end communication                                                          |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10598 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR1 = 0.0                                                                                               |                                                                                   | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10599 | R | Read Defined Variable [TT]<br>(MPU1)Lo_PIS_Tc2DduPaPbR2 = 0.0                                                                                               |                                                                                   | OK | 0 | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10600 | R | Green lamp 54H2 is OFF                                                                                                                                      |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10601 | I | PA announcement is de-activated                                                                                                                             |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10602 | A | Press the button 54S4 and hold it while talking on the microphone                                                                                           |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10603 | R | Sound cannot be heard in all speakers                                                                                                                       |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10604 | A | Release the button 54S4                                                                                                                                     |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10605 | A | Remove active cab on TC1                                                                                                                                    |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10606 | A | Pulse the switch 54S1 to the right to activate PA announcement                                                                                              |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10607 | R | Green lamp 54H2 is OFF                                                                                                                                      |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10608 | R | No PA announcement activation showing on the Driver's screen                                                                                                |                                                                                   | OK |   | Mbavhalelo<br>Funyufunyu - 484649 | Train |

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| 10609 | I | Ventilation Rack TC2                                                                                                                             |                                                                                   | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10610 | A | Follow the instruction below o how to test the ventilation rack                                                                                  |  | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10611 | R | All three fans of the ventilation rack are working                                                                                               |                                                                                   | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10612 | I | Pacis audio and displays test                                                                                                                    |                                                                                   | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | 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 |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10614 | A | Launch the Pacis Test from the DDU                                                                                                               |                                                                                   | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10615 | R | All saloon speakers and displays are working on train                                                                                            |                                                                                   | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10616 | A | Stop the Pacis test                                                                                                                              |                                                                                   | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |
| 10617 | I | End of Test                                                                                                                                      |                                                                                   | OK |  | Mbavhalelo<br>Funyufunyu - 484649 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 29 – Dynamic Pre-Test

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### 29.3 Instructions list

### 29.3.1 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            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10002 | I    | Train Normalisation                                                                                                                       |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10003 | A    | Whilst checking the LV cubicles in each Car, also check the dataplug ground cables if they are secured and tightened                      |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10004 | I    | TC1                                                                                                                                       |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10005 | R    | ALL LV1.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10006 | R    | ALL LV2.1 connectors are connected and tightly secured with screws                                                                        |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10007 | R    | ALL LV7 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10008 | R    | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                                 |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10009 | R    | ALL underframe connectors are connected and tightly secured with screws                                                                   |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10010 | R    | ALL inter-car connectors are connected and tightly secured with screws                                                                    |      | OK            |              | Paseka Ditlhakanyane - 491468 | 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            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10012 | R    | The values of the HVAC sensor grades are the same                                                                                         |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10013 | I    | M4                                                                                                                                        |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10014 | R    | ALL LV3 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |
| 10015 | R    | ALL LV6 connectors are connected and tightly secured with screws                                                                          |      | OK            |              | Paseka Ditlhakanyane - 491468 | Train   |

|       |   |                                                                                                                                         |  |    |  |                               |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
| 10016 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10017 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10018 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10020 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10021 | I | M1                                                                                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10022 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10023 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10024 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10025 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10026 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10028 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10029 | I | M2                                                                                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10030 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10031 | R | ALL LV4 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                                         |  |    |  |                               |       |
|-------|---|-----------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
| 10032 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10033 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10034 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10036 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10037 | I | M3                                                                                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10038 | R | ALL LV3 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10039 | R | ALL LV6 connectors are connected and tightly secured with screws                                                                        |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10040 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                               |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10041 | R | ALL underframe connectors are connected and tightly secured with screws                                                                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10042 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10044 | R | The values of the HVAC sensor grades are the same                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10045 | I | TC2                                                                                                                                     |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10046 | R | ALL LV1.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10047 | R | ALL LV2.2 connectors are connected and tightly secured with screws                                                                      |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                                           |  |    |  |                               |       |
|-------|---|-------------------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
| 10048 | R | ALL LV7 connectors are connected and tightly secured with screws                                                                          |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10049 | R | ALL HVAC Cubicle connectors are connected and tightly secured with screws                                                                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10050 | R | ALL underframe connectors are connected and tightly secured with screws                                                                   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10051 | R | ALL inter-car connectors are connected and tightly secured with screws                                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10053 | R | The values of the HVAC sensor grades are the same                                                                                         |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10054 | I | Brake Test                                                                                                                                |  | OK |  | Paseka Ditlhakanyane - 491468 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10060 | A | Prepare the train in high voltage with active cab on TC1                                                                                  |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10061 | A | Set the Driving Mode Switch (30S1) to "DEPOT" position.                                                                                   |  | OK |  | Paseka Ditlhakanyane - 491468 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10063 | A | Select a running direction (Forward or Reverse).                                                                                          |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                                                                                  |  |    |  |                               |       |
|-------|---|----------------------------------------------------------------------------------------------------------------------------------|--|----|--|-------------------------------|-------|
| 10064 | I | REMEMBER TO PRESS THE DEAD MAN BUTTON OCCASIONALLY                                                                               |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10065 | R | Check that all the conditions on the screen are satisfied (green box to the right of each condition)                             |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10066 | A | Select RPT for M4 car                                                                                                            |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10067 | R | RPT for M4 test successful                                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10068 | A | Close the HSCB                                                                                                                   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10069 | A | Select RPT for M1car                                                                                                             |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10070 | R | RPT for M1 test successful                                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10071 | A | Close the HSCB                                                                                                                   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10072 | A | Select RPT for M2 car                                                                                                            |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10073 | R | RPT for M2 test successful                                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10074 | A | Close the HSCB                                                                                                                   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10075 | A | Select RPT for M3 car                                                                                                            |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10076 | R | RPT for M3 test successful                                                                                                       |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10077 | A | Close the HSCB                                                                                                                   |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10078 | I | Traction Test                                                                                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10079 | A | WARNING: Do not perform TRACTION TEST when the Reduced Power Test has failed.                                                    |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |
| 10080 | A | Prepare the train in high voltage with active cab on TC1                                                                         |  | OK |  | Paseka Ditlhakanyane - 491468 | 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 |  | Paseka Ditlhakanyane - 491468 | Train |
| 10082 | R | After the Traction Test is complete, there are no traction faults logged on the DDU Event screen                                 |  | OK |  | Paseka Ditlhakanyane - 491468 | Train |

|       |   |                                                                     |  |    |           |                               |       |
|-------|---|---------------------------------------------------------------------|--|----|-----------|-------------------------------|-------|
| 10083 | I | Load requirements                                                   |  | OK |           | Paseka Ditlhakanyane - 491468 | Train |
| 10084 | R | Read Undefined Variable [TT]<br>SBK_M1CarWeight                     |  | OK | 36191.4   | Paseka Ditlhakanyane - 491468 | Train |
| 10085 | R | Read Undefined Variable [TT]<br>SBK_M2CarWeight                     |  | OK | 37491.02  | Paseka Ditlhakanyane - 491468 | Train |
| 10086 | R | Read Undefined Variable [TT]<br>SBK_M3CarWeight                     |  | OK | 35836.39  | Paseka Ditlhakanyane - 491468 | Train |
| 10087 | R | Read Undefined Variable [TT]<br>SBK_M4CarWeight                     |  | OK | 35952.22  | Paseka Ditlhakanyane - 491468 | Train |
| 10088 | R | Read Undefined Variable [TT]<br>SBK_Tc1CarWeight                    |  | OK | 33961.68  | Paseka Ditlhakanyane - 491468 | Train |
| 10089 | R | Read Undefined Variable [TT]<br>SBK_Tc2CarWeight                    |  | OK | 35133.68  | Paseka Ditlhakanyane - 491468 | Train |
| 10090 | A | Calculate the sum of all cars                                       |  | OK |           | Paseka Ditlhakanyane - 491468 | Train |
| 10091 | R | The sum of the weight for all cars<br>Result Max : x <= 223740 (kg) |  | OK | 214566.39 | Paseka Ditlhakanyane - 491468 | Train |
| 10092 | I | End of Test                                                         |  | OK |           | Paseka Ditlhakanyane - 491468 | Train |



|                                                                               |                                                    |                             |
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| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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| Serial Tests Report<br>TS224 – TFS<br>RTR Train Functional Static Test Report | Document Reference<br>GIB0000006510<br>Version: A0 | Emission date<br>27/05/2024 |
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## Section 30 – Report summaries

### 30.2 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         |            |               |
| HVAC Air Conditioning                   | 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 |  |  |

### 30.3 Tools used

| Function | Tool name              | Tool number          | Next Calibration date |
|----------|------------------------|----------------------|-----------------------|
| 019_AIR  | Manometer              | Manometer            | 7/31/2024             |
| 025_NET  | Cable Analyser DSX5000 | Fluke machine_Ubunye | 6/23/2024             |
| 040_SBK  | Manometer              | Manometer            | 7/31/2024             |
| 040_SUP  | Manometer              | Manometer            | 7/31/2024             |
| 044_UBK  | Manometer              | Manometer            | 7/31/2024             |
| 045_PBK  | Manometer              | Manometer            | 7/31/2024             |
| 050_DOR  | Pressure Meter         | Pressure Meter 1     | 8/25/2024             |
| 072_SGL  | Manometer              | Manometer            | 7/31/2024             |

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