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| *TEST CASE DESCRIPTION* | | | | | | | |
|  | | Code | Version | | Title | | |
| Test Case | | 4.1.5 | 1 | | Level transition from L0+LZB to L1. TSR in L1 area. | | |
|
| Baseline applicable | | Baseline 2 (2.3.0.d) | | | | | |
| Test case author | | ADIF | | | | | |
| Test Objective(s) | | Verify that the EVC supervises the permitted speed for a TSR set in the L1 area on performing a level transition from level L0 + LZB to level 1. | | | | | |
| Diagram | |  | | | | | |
| Starting conditions | | Level | | | | 0 | |
| Mode | | | | UN | |
| Train Speed (km/h) | | | | NR | |
| Additional starting conditions | | | | The train is running in L0 + LZB with transmission and approaching a level transition border to level 1.  All the signals ahead display proceed aspect.  It is requested to the signalman to set a TSR with a speed as low as possible in the Level 1 area and close to the level transition.  The TSR shall be set in both systems (ETCS and LZB). | |
| Sequence of the Test Case | | Checkpoints | | | | | |
| Step | Step description | Interfaces | | Description of what to be tested at the interface | | | OK? |
| 1 (\*) | The train receives the level transition announcement via balise group. | DMI (O) | | Level 1 transition announcement | | |  |
| DMI (I) | |  | | |  |
| JRU | | M\_LEVEL = 0  M\_MODE = 4  Packet 41  D\_LEVELTR = D1  M\_LEVELTR = 2 | | |  |
| 2 (\*) (\*\*) (\*\*\*) | The LZB equipment runs the distance at which the acknowledgement of the transition to “End of LZB” is shown to the driver. | DMI (O) | |  | | |  |
| DMI (I) | |  | | |  |
| JRU | |  | | |  |
| 3 (\*) (\*\*) (\*\*\*) | The driver acknowledges the “End of LZB” | DMI (O) | |  | | |  |
| DMI (I) | |  | | |  |
| JRU | |  | | |  |
| 4 | The EVC receives a MA from a BG | DMI (O) | |  | | |  |
| DMI (I) | |  | | |  |
| JRU | | Packet 12  Packet 21  Packet 27 | | |  |
| 5 | The EVC runs the distance "D1" or the balise group with level transition order to L1 and TSR information is read. | DMI (O) | |  | | |  |
| DMI (I) | |  | | |  |
| JRU | | Packet 41  D\_LEVELTR = 32767  M\_LEVELTR = 2  Packet 65   NID\_TSR= TSR1  V\_TSR = V1  L\_TSR= L1  D\_TSR= D2 > D1 (LRBG1) | | |  |
| 6 | Transition to L1 is performed (without abrupt changes in the permitted speed) | DMI (O) | | Level 1 Symbol  FS Symbol  Level 1 transition announcement disappears | | |  |
| DMI (I) | |  | | |  |
| JRU | | M\_LEVEL= 2  M\_MODE = 0 | | |  |
| 7 (\*\*) (\*\*\*) | LZB equipment changes to “No transmission” mode.  Train continues in L1 + LZB without transmission. | DMI (O) | |  | | |  |
| DMI (I) | |  | | |  |
| JRU | |  | | |  |
| 8 | The train starts the braking curve to the TSR. | DMI (O) | | Braking curve with Vtarget = V1  Vtrain < Vpermitted | | |  |
| DMI (I) | |  | | |  |
| JRU | | V\_TRAIN < V\_PERMITTED V\_TARGET = V1 | | |  |
| 9 | The train reaches the TSR area when the max safe front end of the train has run the distance D2. | DMI (O) | | Vpermitted = V1 Vtrain ≤ V1 | | |  |
| DMI (I) | |  | | |  |
| JRU | | V\_PERMITTED = V1 V\_TRAIN ≤ V1  estimated front end = D2(LRBG2) - L\_DOUBTUNDER | | |  |
| Final state | | Level | | 1 | | |  |
| Mode | | FS | | |  |
| Train Speed (km/h) | | NR | | |  |
| Other parameters | |  | | |  |
| Final Test Result | |  | | | | | |
| Field of Application | | Spain | | | | | |
| Briefing instructions | | (\*) Step 1 could take place at any moment between step 2 and step 3.  (\*\*) In case that the LZB continues into the line, the train will continue with LZB in Transmission mode and these steps will not take place.  (\*\*\*) These steps should be checked in the LZB onboard unit. | | | | | |