3183357/2024/Q/o PED/TRACTION/RDSO

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Date: As signed

No. EL/4.2.15/Gen

1. Central Railway, Mumbai CST-400 001

Principal Chief Electrical Engineers,

- 2. East Central Railway, Hazipur-844 101
- 3. East Coast Railway, Chandrashekharpur, Bhubaneswar-751 016
- 4. Eastern Railway, Fairlie Place, Kolkata-700 14. South Western Railway, Hubli-580 024
- 5. North Central Railway, Subedarganj, Prayagraj-211 033
- 6. Northern Railway, Baroda House, New Delhi-110 001
- 7. North Eastern Railway, Gorakhpur-273001
- 8. North East Frontier Railway, Maligaon, Guwahati-781 011
- 9. North Western Railway, Jaipur-302 006
- 10. South Central Railway, Rail Nilayam, Secunderabad-500 071

- 11. South East Central Railway, Bilaspur- 495 004
- 12. South Eastern Railway, Garden Reach, Kolkata-700 043
- 13. Southern Railway, Park Town, Chennai-600 003

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Railways

- 15. West Central Railway, Jabalpur-482 001
- 16. Western Railway, Churchgate, Mumbai- 400 020
- 17. Chittaranjan Locomotive Works, Chittaranjan-713 331

MODIFICATION SHEET NO. RDSO/2024/EL/MS/0499(Rev.0)

1.0 TITLE:

Provision of two LED indication lamps, LSIP1 in Cab-1 and LSIP2 in Cab-2, in conventional electric locomotives equipped with MPCS Version-3, to indicate the IP coil status (energized/de-energized) in case of DDU failure.

2.0 **BACKGROUND:**

- 2.1 In MPCS Version-3, the VCD is integrated with MPCS. Zonal Railways have reported many cases of display failures in M/s Medha make MPCS Version-3, and in such situations, there is no indication to Loco Pilots about VCD warnings, resulting in penalty brakes being applied. This modification will enable the crew to easily identify BP drop due to locomotive trouble or formation issues if the DDU gets stuck or the VCD penalty brake is activated, or for any other reason the IP coil gets de-energized.
- 2.2 Southern Railway, via their letter no. E.134/ET/11/Loco dated 09.02.2024, submitted the details of a modification proposal regarding the above for discussion in the 41st MSG Meeting and informed that LSIP provided in 2 locos was working successfully.
- 2.3 In the 41st MSG Meeting, the above matter was discussed, and the Minutes of Meeting, approved by the Railway Board, have been circulated to IR via RDSO's letter no. EL/2.1.8 dated 11.07.2024.

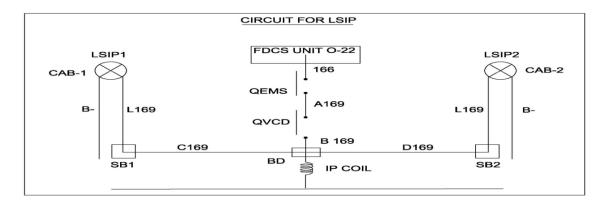
3.0 **OBJECT:**

In case of failures of the DDU of MPCS Version-3 in conventional electric locomotives, knowing the IP valve status (energized/de-energized) will enable Loco Pilots to easily identify BP drop due to locomotive trouble or formation issues. Additionally, the IP valve COC can be cut/ isolated to reach the destination. If the LSIP is glowing, it indicates that the IP coil is energized, and if the LSIP is not glowing, it indicates that the IP coil is de-energized. The Loco Pilot can then take action as per the TSD to clear the block section and avoid line detention.

4.0 WORKS TO BE CARRIED OUT:

It is required to provide one LED indication lamp as LSIP1 in Cab-1 and another LED indication lamp as LSIP2 in Cab-2. The supply should be given from BD to LSIP1 and LSIP2 from cable 169, and other connections should be made as per the diagram provided in paragraph 5.0 below.

5.0 **MODIFICATION DRAWING:**



6.0 APPLICATION TO CLASS OF LOCOMOTIVES:

Conventional Electric Locomotives equipped with MPCS (ver-3).

7.0 **MATERIAL REQUIRED:**

- (i) Green LED Indication lamps (110V/DC): 2 nos.
- (ii) 3 Sq. mm cable: 40 meters.
- (iii) MS base plate of 3 mm thickness for fixing of LED indication lamp: 2 no's.

8.0 **MATERIAL RENDERED SURPLUS:**

None.

9.0 **REFERENCES:**

Minutes of Meeting (MoM) of the 41st MSG Meeting circulated via RDSO's letter no. EL/2.1.8 dated 11.07.2024.

10.0 AGENCY FOR IMPLEMENTATION:

Electric Loco Sheds/Diesel Loco Sheds/POH Workshops maintaining Conventional Electric Locomotives equipped with all makes of MPCS(Version-3).

(Amit Yadav) for Director General/Electrical

Encl.: As above Copy to:

As per standard mailing list.