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भारत सरकार – रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ – 226011
Government of India - Ministry of Railways
Research, Designs & Standards Organization,
LUCKNOW - 226011

No. EL/3.1.14

Dated 19.05.2016

Chief Electrical Engineers,

1. Central Railway, Mumbai CST- 400 001.
2. Eastern Railway, Fairlie Place, Calcutta- 700 001
3. Northern Railway, Baroda House, New Delhi-110 001
4. Southern Railway, Park Town, Chennai-600 003
5. South Central Railway, Rail Nilayam, Secunderabad –500 071
6. South Eastern Railway, Garden Reach, Calcutta-700 043
7. Western Railway, Churchgate, Mumbai-400 020
8. East Cost Railway, Chandrashekharapur, Bhubaneswar- 751 016.
9. North Central Railway, Hasting Road, Allahabad-211 001.
10. East Central Railway, Hazipur-844101 (Bihar)
11. West Central Railway, Jabalpur-482001
12. South East Central Railway, Bilaspur-495004
13. Chittaranjan Locomotive works, Chittaranjan-713 331

MODIFICATION SHEET No. RDSO/2016/EL/MS/0450 Rev'0'Dated 19.05.2016

1.0 Title :

Deactivation of Vigilance Control Device (VCD) acknowledge from Asstt. Loco Pilot side on Electric locomotives.

2.0 Object :

To follow common operational practices in Electric locomotive for ensuring safe train operation VCD acknowledge from Asstt. Loco Pilot side in all the electric locomotives needs to be deactivated as done for Diesel locomotives.

3.0 Existing arrangement with cross references of respective design document:

3.1 At present vigilance cycle gets reset by any one of the following action to be taken by LP/ALP:

- a) Notch up/Notch down by master controller or EEC;
- b) Brake applications through A9 or SA9;
- c) Application of sander;
- d) Pressing VCD acknowledgement push button by ALP;
- e) Pressing of foot paddle switch by loco pilot;
- f) Operation of first shunting notch i.e. MPS-1

4.0 Modified arrangement to replace existing arrangement as given above in 3.0

- 4.1 Deactivation of Vigilance Control Device (VCD) from ACK push button switch provided in cab unit of locomotives as in para 3.1(d) keeping rest actions as it is for acknowledgement of VCD.

4.2 Activities involved

a. Tap changer locomotives with MPCS version 2.0 or below

1. Activities as per RDSO specification no. RDSO/2008/EI/SPEC/0025.
 - Remove the ACK push button switch along with signal wire from pin no. C&D of 9 pin circular connector from VCD cab unit.
 - Plug the hole for ACK push button switch in cab unit.
2. Activities as advised by manufacturers.
 - a. M/s. Saitronik:
 - Remove the ACK push button switch along with signal wire from pin no. C & I of 9 pin circular connector from VCD cab unit color code green & gray.
 - b. M/s. ICEL
 - Remove the ACK push button switch along with signal wires (DC+ & VPB) from 9 pin circular connector from VCD cab unit.
 - c. M/s. AAL
 - Remove the ACK push button switch along with signal wire (yellow) from pin no. C of 9 pin circular connector and unscrew the red wires with lug from other end of ACK push button switch, insulate and secure these properly from VCD cab unit.
 - d. M/s Medha
 - ACK push button deactivation can be possible by simply disconnecting the BP(110V) wires from push button switch.
 - e. M/s Stesalit
 - Remove the ACK push button switch along with signal wires from 9 pin circular connector from VCD cab unit
 - d. M/s Stone India Ltd.
 - Remove ACK switch from CAB unit. And properly mount dummy plate on ACK switch hole to prevent unit from dust and loop back (Solder type) 'C' & 'D' pin of 'Main' coupler inside the cab unit

b. Tap changer locomotives with MPCS version 3.0

1. Remove : Wires (701/1 & 274) RGH-1 (Horn-1)
Wires (701/2 & 274) RGH-2 (Horn-2)
Wires (701/1 & 274) BPACK-1
Wires (701/2 & 274) BPACK-2
from BD panel which are input to I-86.

Wregh

MPCS version 3 Releases as per CLW drawing no.CLW.3W.15000.094 sheet 14 of 18 part of which is enclosed as Annexure-I

2. Remove BPACK-1 and BPACK-2 switches.
3. This modification will deactivate VCD acknowledgement by Horn and ALP side ACK push button switch.

c. Three phase locomotives

Isolation of Push button reset vigilance control switch 236 at "D" panel.

- **Cable no. 4211A**

Cab -1 end.

Four nos. 1.5 Sq. mm cables are available at "F" panel terminal block no. XF13A:04 terminal 02.

The cable terminating towards XK18D Pin 7 is required to be removed from XF13A:04 terminal 02 end. and removed cable to be kept in cable bunch. Same process to be carried out in Cab2.

- **Cable no. 4211B**

Cab -2 end.

Four nos. 1.5 Sq. mm cables are available at "F" panel terminal block no. XF86A:04 terminal 02.

The cable terminating towards XK81D Pin 7 is required to be removed from XF86A:04 terminal 02 end. and removed cable to be kept in cable bunch.

5.0 Application to Class of Locomotives:

5.1 All tap changer electric locomotives fitted with VCD as per RDSO specification no. RDSO/2008/EI/SPEC/0025 (all versions).

5.2 All three phase locomotives.

6.0 Material Required : NIL

7.0 Material Rendered Surplus:

7.1 Push button switches (02 nos.)

7.2 Horn Pressure switch for MPCS Version 3 fitted locomotives (02 nos.)

8.0 Reference:

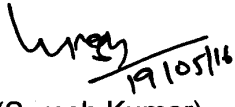
1. Railway Board letter no. 2003/Elect(TRS)/441/3 Vol.I Pt. Dated 11.03.2016
2. RDSO's letter no. SD.Dev.MCS dated 31.08.2015 with Mod.sheet no.MP.MOD.EC.02.12.14,Rev.2, August 2015
3. RDSO's letter no. SD.Dev.MCS dated 17.11.2014



9.0 **Modification Drawing:** Annexure-I

10.0 **Agency of Implementation:**
All Electric Loco Sheds, CLW &POH shops

Encl: Annexure-I


(Suresh Kumar)
for Director General/Elect.

Copy to:

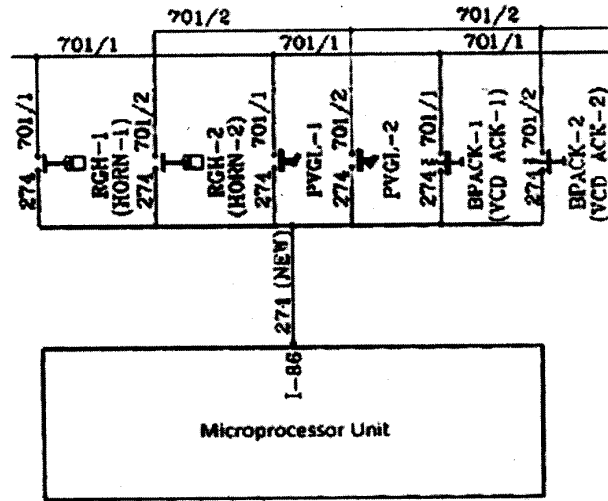
1. Secretary (Electric Traction), Railway Board, Rail Bhavan, New Delhi-110 001
2. Sr. DEE (TRS), Electric Loco Sheds,

Encl: Annexure-I

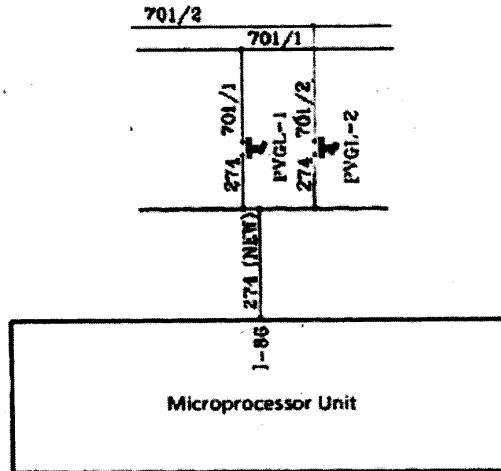

(Suresh Kumar)
for Director General/Elect.

Annexure-1

(Ref: CLW DRG No. CLW.3W.15000.094 sht No. 14 of 18)



Existing Circuit



Modified Circuit for mpc's v.s. filled locomotives

Handwritten signature/initials
19/05/16