

भारत सरकार—रेल मंत्रालय अनुसंघान अभिकल्प और मानक संगठन लखनऊ — 226011 EPBX (0522) 2451200 Fax : 0522 - 2452581

GOVERNMENT OF INDIA - MINISTRY OF RAILWAYS
RESEARCH, DESIGNS & STANDARDS ORGANIZATION,
LUCKNOW - 226011
DID (0522) 2450115
DID (0522) 2465310



No. EL/3.2.1/3-Ph

Dt. 12.03.2014

All Chief Electrical Engineers,

MODIFICATION SHEET NO. RDSO/2014/EL/ MS/0432(REV. '0'), dt. 12.03.2014

1.0 TITLE:

Removal of shorting link provided at c-d terminal of over current relay of 3-ph locomotives.

2.0 OBJECT:

- 2.1 Over Current Relay(OCR) is provided with 03 sets of terminals on its base i.e. a-b for NO interlock, c-d for NC interlock and u-v for coil connection.
- 2.2 Spring loaded shorting link is provided on coil connection terminal (u-v) to provide shorting to CT when OCR is removed from its base.
- 2.3 However, provision of spring loaded shorting link on c-d terminal causes shorting of NC interlock resulting closing of VCB even after removal of OCR(relay 78) from its base. Over current Relay is a safety item and loco VCB must not get closed without it.

3.0 Existing arrangement with cross references of respective design document:

Maximum current relay(over current relay -78) conforming to CLW specification No. CLW/ES/3/0059(Alt.'C') has a provision of 03 sets of terminals on its base i.e. a-b for NO interlock, c-d for NC interlock and u-v for coil connection. Spring loaded shorting link is provided on coil connection terminal (u-v) & c-d terminal for NC interlock of relay.

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

- 4.1 All the in-service 3-ph locomotives having spring loaded shorting link provided on c-d terminal(NC interlock) of the Over Current Relay(relay 78) is to be removed from the base of the relay.
- 4.2 CLW may amend specification No. CLW/ES/3/0059(Alt.'C')- Maximum current relay for removal of shorting link provided at c-d terminal of over current relay of 3-ph locomotives to ensure supply of new over current relays without shorting link at c-d terminal.
- 5.0 APPLICATION TO THE CLASS OF LOCOMOTIVES:

All 3-phased electric locomotives (WAP5, WAG9, WAP7)

6.0 MATERIAL REQUIRED:

Nil

7.0 MATERIAL RENDERED SURPLUS:

One number shorting link.

- 8.0 REFERENCE:
 - i) Railway Board's letter No.2013/Elect.(TRS)/138/6 dated 17.01.2014.
 - ii) Minutes of 36th MSG meeting(Item No. 14).
- 9.0 MODIFICATION DRAWING:

Relay picture depicting terminals enclosed as Annexure-I.

10.0 AGENCY OF IMPLEMENTATION:

All Electric Loco Sheds and POH Workshops/CLW with 3-Ph electric locomotives.

DA: As above.

(A.K.Singhal) (2/3) for Director General (Elect.)

Annexure-I

Picture depicting base of Over Current Relay(Relay 78)

