Telex : 0535 - 2424 RDSO -IN
Fax : 91 - 0522 - 2452581
Telephone : 2450374 & 2451200
Telegram : 'RAILMANAK', Lucknow
e-mail : dell1@rdso.railnet.gov.in

सत्यमेव जयते

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

EL/3.1.3

Date: 23/04/2008

Chief Electrical Engineers:

1. Central Railway, Mumbai, CST-400 001.
2. East Central Railway, Hazipur-844101.
3. East Coast Railway, Chandrashekharpur, Bhubaneshwar-751016.
4. Eastern Railway, Fairlie Place, Calcutta-700001.
5. North Central Railway, Subedarganj, Allahebad-211033.
6. Northern Railway, Baroda House, New Delhi-110001.
7. South Central Railway, Secunderabad 500 071.
8. South East Central Railway, Bilaspur-495004.
9. South Eastern Railway, Garden Reach, Calcutta-700 043.
10. Southern Railway, Park Town, Chennai-600 003.
11. West Central Railway, Jabalpur-482001.
12. Western Railway, Church gate, Mumbai-400 020.
13. Chittaranjan Locomotive Works, Chittaranjan-713331.

Modification Sheet No: RDSO/2008/EL/MS/0361 (Rev 0)

1.0 Title:

Revision of the setting of Q_D relay in WAG5 and WAG7 locomotives.

2.0 Object:

Existing setting of Q_D relay in WAG5 and WAG7 locomotives is as under;

	WAG5	WAG7
Pick up	125 amps	150 amps
Drop out	80 amps	80 amps

SCR has reported problem of reduction of large number of notches due to actuation of Q_D relay while hauling heavy loads on steep rising gradients and thus causing stalling. SCR has tried setting of Q_D relay to 175/140 amps in WAG5 & WAG7 locomotives and results of their trials are reported to be satisfactory and thus they have proposed to adopt 175/140 amps setting.

RDSO has examined the issue. Trials were conducted at ELS/CNB for practically observing the minimum achievable difference in pick up and drop out values of Q_D relay. It was observed that setting of pick up and drop out values could be achieved with a minimum difference of 20 amps and if difference is reduced further relay started chattering.

RDSO has considered the option of raising the drop out value as one of the solution to address the problem of reduction of large number of notches and thus CR. WR, ECoR & SER were advised to conduct field trials with setting of 150/120 amps in WAG7 and 125/95 amps in WAG5 locomotives. This issue was further discussed during CELE's conference on 3rd & 4th April, 2008 at IRIEEN, NKRd and feedback from Railways was taken. It was opined by Railways to adopt 160/130 amps setting for Q_D relay. Accordingly the setting of Q_D relay in WAG5 and WAG7 locomotives is revised as under.

Revised setting of Q_D relay

	WAG5	WAG7
Pick up	160 Amps	160 Amps
Drop out	130 amps	130 Amps.

3.0 **Work to be carried out:**

Revise the setting of Q_D relay as above.

4.0 **Application to the class of locomotives:**

WAG5 and WAG7 locomotives.

5.0 **Material required:**

NIL

6.0 **Material render surplus:**

NIL

7.0 **Reference:**

(i) RDSO's modification sheet No: ELRS/MS/0299-2000 (Rev '0') of Oct. 2000
(ii) S C Rly letter No: E 221/Relays/Vol-IV dated 15/2/06 and 30/6/06.
(iii) RDSO's letter No EL/3.1.3 dated 24-12-2007
(iv) Discussion during CELE's conference on 3rd & 4th April, 2008 at IRIEEN, NKRd.

8.0 **Agency for implementation:**

i) All Electric Loco Sheds.
ii) All POH Workshops.
iii) Chittaranjan Locomotive Works, Chittaranjan-713331.

9.0 **Distribution:** As per standard mailing list number EL/M/0019.

(Ishaq Khan)
For Director General Std/Elect