

Fax : (0522)-2452581
Telephone: (0522)-2465715
Telegram : 'RAILMANAK', LKO
Email: dsetpl@gmail.com



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

सं. ई. एल./3.1.35/2 इलेक्ट्रिकल

दिनांक: 10.08.2011

१२

मुख्य विद्युत अभियंता,

1. पूर्व-मध्य रेलवे, हाजीपुर-844 101
2. मध्य रेलवे, मुम्बई सीएसटी -400 001
3. दक्षिण मध्य रेलवे, रेल निलायम, सिकंदराबाद-500 371
4. उत्तर रेलवे, बड़ोदा हाऊस, नई दिल्ली-110 001
5. दक्षिण पूर्व मध्य रेलवे, बिलासपुर-495 004
6. पश्चिम मध्य रेलवे, जबलपुर-482 001
7. पूर्व रेलवे, फेयर्ली प्लेस, कोलकाता-700 001
8. दक्षिण पूर्व रेलवे, गार्डन रीच, कोलकाता-700 043
9. चितरंजन रेलइंजन कारखाना, चितरंजन - 713 331

विषय : विषय :संलग्न पत्र से सम्बंधित ।

उपरोक्त विषय में इस कार्यालय द्वारा जारी माडीफिकेशन शीट सं०. आरडीएसओ/2011/ईएल/एमएस/0400 (रिवी.0) दिनांक 10.08.2011 आपकी सूचना एवं आवश्यक कार्यवाही हेतु इस पत्र के साथ संलग्न है ।

(वी. के. सिंह)

कृते महानिदेशक/विद्युत

संलग्नक: यथोक्त ।

1. सचिव (विद्युत चल स्टाक), रेलवे बोर्ड, रेल भवन, नई दिल्ली-110 001
2. मुख्य विद्युत लोको अभियंता,

1. पूर्व-मध्य रेलवे, हाजीपुर-844 101
2. मध्य रेलवे, मुम्बई सीएसटी -400 001
3. दक्षिण मध्य रेलवे, रेल निलायम, सिकंदराबाद-500 371
4. उत्तर रेलवे, बड़ोदा हाऊस, नई दिल्ली-110 001
5. दक्षिण पूर्व मध्य रेलवे, बिलासपुर-495 004
6. पश्चिम मध्य रेलवे, जबलपुर-482 001
7. पूर्व रेलवे, फेयर्ली प्लेस, कोलकाता-700 001
8. दक्षिण पूर्व रेलवे, गार्डन रीच, कोलकाता-700 043

3. वरिष्ठ मंडल विद्युत अभियन्ता (टी.आर.एस.), विद्युत लोको शेड,

- मध्य रेलवे, अजनी, नागपुर - 440 008
- पूर्व मध्य रेलवे, गोमोह - 828 401
- उत्तर रेलवे, गाजियाबाद, - 201 001 (उत्तर प्रदेश)
- दक्षिण मध्य रेलवे, लालागुडा - 500 017
- दक्षिण पूर्व रेलवे, टाटानगर-831 002
- पश्चिम मध्य रेलवे, तुगलकाबाद, नई दिल्ली-110 044
- दक्षिण पूर्व मध्य रेलवे, बीएमवाई काम्पलेक्स, भिलाई दुर्ग-490 025
- पूर्व रेलवे, हावड़ा

(वी. के. सिंह)

कृते महानिदेशक/विद्युत

संलग्नक: यथोक्त ।

जसविष्णु
शशिपति
१२-४-११



No. EL/3.1.35/2 Electrical

Dated 10.08.2011

Chief Electrical Engineers,

- Northern Railway, Baroda House, New Delhi-110 001
- East Central Railway, Hazipur - 844 101 (Bihar)
- Central Railway, 2nd floor, Parcel Office Bldg., Mumbai CST-400 001
- South Central Railway, Rail Nilyam, Secunderabad - 500 071.
- West Central Railway, Jabalpur-482001
- South East Central Railway, Bilaspur-495004
- South Eastern Railway, Garden Reach, Kolkata-700 043
- Eastern Railway, Fairlie Place, Kolkata- 700 001
- Chittaranjan Locomotive Works, Chittaranjan-713 331 (WB)

MODIFICATION SHEET NO. RDSO/2011/EL/MS/0400 Rev.'0' Dated 10.08.11

1.0 Title:

Modification Sheet for shifting the termination of 4GKW, 1.8 KV, 70sqmm cables and 2 x 2.5 mm² cables housed in lower portion of HB2 panel and provision of Synthetic resin bonded glass fibre (SRBGF) sheet for three phase locomotives.

2.0 Object:

Cases of fire from lower portion of HB-2 panel have been reported while testing and commissioning of three phase locomotives at CLW. The lower portion of HB-2 panel receives two sets of cables, each set consisting of three cables (4GKW, 1.8 KV, 70 mm²) from auxiliary winding terminals of the main transformer. The two cable sets are terminated on two 125 mm² (25mm X 5mm) copper bus bars (one for each set) which in turn is supported from the base and side wall of the HB-2 panel through MICAFIL insulators.

As the clearance of the bus bar is not sufficient from body which is at earth potential leading to sparking and consequently leading to fire at times hence this modification is required.

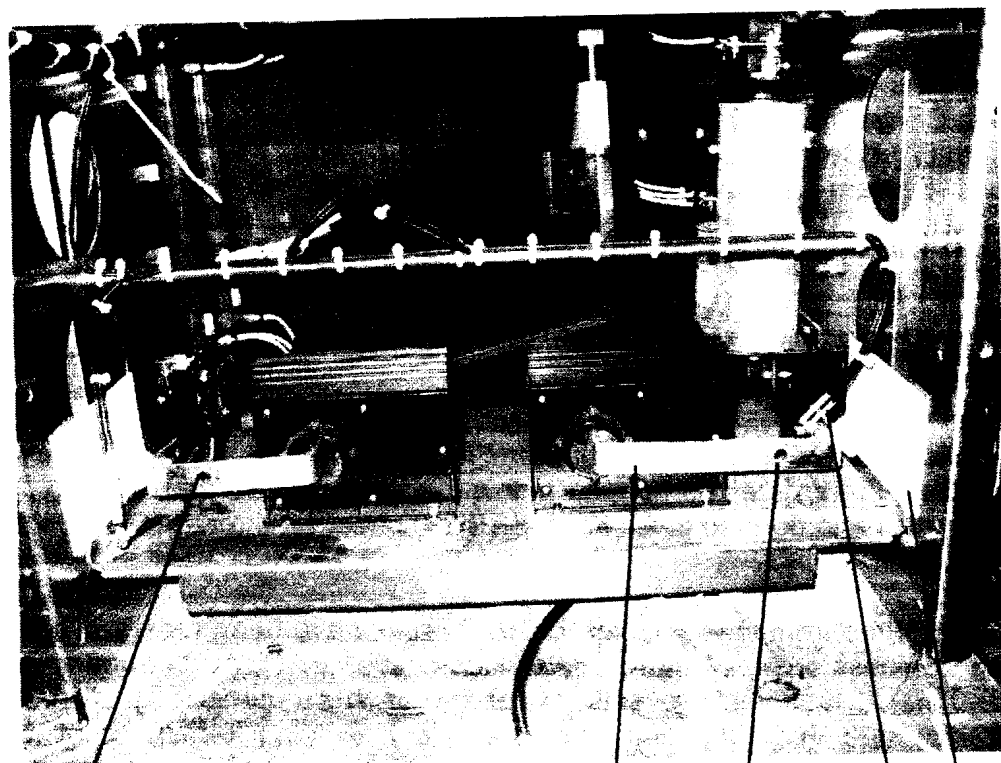
3.0 Existing Arrangement with cross-references of respective design document:

The lower portion of HB-2 panel receives two sets of cables ie.cable no. 1103 & 1117, each set consisting of three cables (4GKW, 1.8 KV, 70 mm²) from auxiliary winding terminals of the main transformer. The two cable sets are terminated on two 125 mm² (25mm X 5mm) copper bus bars (one for each set) which in turn is supported from the base and side wall of the HB-2 panel through MICAFIL insulators. Also 2 x 2.5 mm² cables are fixed in the front of the bus bar as seen from back side of panel..

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

The two cable sets (cable no. 1103 & 1117) which are supported from the base and side wall of HB-2 panel through MICAFIL insulators are required to be fixed in the front of the copper bus bar as seen from back side of panel. Also 2 x 2.5mm² cables which are fixed at the front portion of the bus bar is

shifted to the side of the panel. A SRBGF sheet (white colour) of size 160mm x 95mm x 2mm are also to be fixed between each side MICAFIL insulator and panel as indicated in Fig. 1. The modified drawing of both the bus bar in which 3 nos. of 70 sq.mm. cables in each bus bar are fixed and 2 x 2.5mm² cables are fixed are indicated at Fig. 2.



Hole for 3 cables each
of size (4GKW, 1.8 KV,
70 mm²) Cable no.
1117

From back side of
Panel

Hole for 3 cables
each of size
(4GKW, 1.8 KV,
70mm²) Cable no.
1103.

SRBGF SHEET:
(160mmX95mmX2

Copper bus bar

2 x 2.5 mm² cable

Fig: 1

8.0 Reference:

CLW letter no nil dated 29.11.10 .

9.0 Modification Drawing:

Attached.

10.0 Agency of Implementation:

CLW in all the new locos, POH workshop during POH of locos and Loco Sheds holding 3-phase locomotives.


(A.K. Goswami)

for Director General/Elect.

Encl: As above

Copy to:-

1. **Secretary (Electric Traction), Railway Board, Rail Bhavan, New Delhi-110 001**
2. **Chief Electrical Loco Engineers,**
 - Central Railway, 2nd floor, Parcel Office Bldg., Mumbai CST-400 001
 - East Central Railway, Hazipur – 844 101 (Bihar)
 - Northern Railway, Baroda House, New Delhi-110 001
 - South Central Railway, Rail Nilyam, Secunderabad – 500 071.
 - West Central Railway, Jabalpur-482001
 - South East Central Railway, Bilaspur-495004
 - South Eastern Railway, Garden Reach, Kolkata-700 043
 - Eastern Railway, Fairlie Place, Kolkata- 700 001
3. **Sr. DEE (TRS), Electric Loco Sheds,**
 - Central Railway, Ajni (Nagpur)-440008
 - East Central Railway, Gomoh-828 401
 - Northern Railway, Ghaziabad (UP)- 201001
 - South Central Railway, Lalaguda, Secunderabad – 500 017.
 - West Central Railway, Tughlakabad, New Delhi- 110 044.
 - South East Central Railway, BMY Complex, Bhilai, Durg-490 025.
 - South Eastern Railway, Tatanagar-831 002.
 - Eastern Railway, Howrah.

Encl: As above


(A.K. Goswami)

for Director General/Elect.