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GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RAILWAY BOARD
NEW DELHI

NO: 92/DEV.CELL/IDEM/2 Vol.II

New Delhi, Dated: 26.03.2001

The Chief Mechanical Engineer,
All Indian Railways.
(Except Northern & N.E. Railways)

**Sub:- Maintenance and operation of electronic in-motion
Weighbridges.**

Please find enclosed herewith a copy of letter No. 582M/40/3(23 Repl 89-90) JUDW – II dated 09/12.03.2001 received from CME(Plg.)/Northern Railway on the subject mentioned above.

It is requested that a similar joint procedure order for proper maintenance and operation of electronic in-motion Weighbridges should be issued to all concerned officers of your railway endorsing a copy to this office for the information of Board at the earliest.



(P. K. Handa)
Deputy Director (Development)
Railway Board.

DA: As above.

Joint Procedure Order for maintenance and operation of Electronic-in-motion Weigh bridges

1. **P r e a m b l e :**

The electronic-in-motion weigh bridges installed on Northern Railway shall be handed over to the Commercial Deptt. after they are commissioned by the suppliers. The weigh bridges shall be operated by Commercial Deptt. and shall be on the T&P books of commercial Deptt. The installation shall generally conform to NRHQE Plan no. 463 (For non track circuited territory the weigh rail length can be 4.0 metres)

2. **Nomination of an ADRM:**

As maintenance and operation of the electronic weigh bridges involves Comml. Operating, Civil Engg, Elect Engg, RPF and Mech Engg. Department, one ADRM of each divn. shall be nominated by the DRM to coordinate and monitor the operation & maintenance of weigh bridge. In case of workshops, one JA grade officer of Mechanical deptt. will be nominated by CWM.

3. **Responsibilities of ADRM:**

It would be the responsibility of the ADRM to coordinate and ensure that all weigh bridges on the divisions are functioning properly, showing accurate measures of weights, and are subjected to their scheduled maintenance and testing for items of work for which responsibility rests with the divn.. It should also be ensured that the inspection and certification is carried out by the Inspectorate of Weights & Measures of the State Govts. in accordance with the extant instructions, and the State governments regulations.

4. **Duties and functions of Commercial Deptt. (Custodian)**

4.1 The weigh bridge shall be in the custody of Chief Goods supervisor or any other official of the Commercial Deptt. nominated by the divn. The nominated official shall be in-charge of the weigh bridge house, weigh bridge and weighing operations.

4.2 The official in-charge of the weigh bridge shall ensure that it is duly certified after scheduled testing, any defects or abnormal working noticed should be brought to the notice of the nominated officer/sr. supervisor of Mech Deptt. through telephone and written message. The weigh bridge incharge shall provide any assistance required for calibration and periodic testing of the weigh bridge by the Mechanical deptt. The control panel and the digitizer of the weigh bridge shall be kept locked and sealed.

- 4.3 The official incharge of the weigh bridge shall maintain a break-down register showing the date and time the weigh bridge went out of order, date and time the weigh bridge put back into commission, problem reported, remarks of Service engineer, with signature of the weigh bridge in-charge and signature of the Mech. Official nominated for use in emergency or loss.
- 4.4 The weigh bridge room shall be locked when not in use and keys will be in custody of weigh bridge in-charge. The junction boxes shall also be locked and keys kept in custody of Weigh Bridge In-charge. Duplicate keys should be kept in safe custody of Chief Good supervisor or any other nominated official of Commercial department at the station/yard.
- 4.5 All doors provided on the cubical/cabinet of control equipment shall be kept locked and paper sealed, mentioning time and date of seal, duly signed by the Weigh Bridge In-charge, and suppliers service engineer. Under no circumstances any part or equipment of the weigh bridge shall be interfered or any attempt made to adjust the setting of the weigh bridge on the control panel for weighment of loads.
- 4.6 The keys of the cubical / cabinet and junction boxes will be handed over to representative of the supplier only on demand and taken back after sealing jointly as mentioned under para 4.4 & 4.5 above and entries shall be made in breakdown register under Para.4.3.
- 4.7 No outsider or un-authorized person shall be allowed to enter into the weigh bridge room. Rough handling of the equipment is completely prohibited.
- 4.8 The weigh bridge shall be switched off when not required for weighment for more than 30 minutes. The weigh bridge equipment shall be switched on at least 15 minutes before the weighment is to start. (See Para 5.4)
- 4.9 The weigh bridge in-charge shall ensure that the weighment readings are recorded at speed less than 15 KM per hour, which can be checked from the P.C. monitor and visual display provided. Readings taken above this speed will not be valid.
- 4.10 The weigh bridge in-charge shall ensure that no electric connection is taken from the Junction box provided between the UPS and the weigh bridge computer, digitizer, etc. for any other purpose.
- 4.11 The working of the weigh bridge shall be checked by 2 supervisor/staff of the Commercial Deptt, one for pressing the track side switches sequentially and the other to monitor the functioning of the track side switches as displayed on the PC monitor once in a day before use.
- 4.12 The weigh bridge in charge shall ensure that no electric connection is taken from the junction box provided between the UPS and the weigh bridge computer, digitizer, etc. for any other purpose.

4.13 In case of failure of electric power supply from the main source, the weigh bridge in-charge shall start the mini generating set provided for operation of the weigh bridge equipment for avoiding detention to rakes to be weighed. The day to day filling up of the generating set with consumables like petrol, kerosene, etc. shall also be done by the staff of commercial department.

5.0 Duties of Operating deptt. (CYM / Station Master)

5.1 CYM/SM shall arrange to pass the rakes for weighment through the weigh bridge line without stopping short of the weigh bridge so that the full rake can be passed at a uniform speed not exceeding 15 KM per hour.

5.2 Weigh Bridge Ahead Boards are provided on both sides of the weigh bridge about 300 mts. in advance of the weigh bridge, with special marking to indicate to the driver that they are passing over the weigh bridge. Necessary instructions will be given to the driver of the train to be weighed in advance.

5.3 The drivers of the trains passed for weighment purpose shall be suitably instructed and trained. They should be given necessary instructions before entering into the loop line on which weigh bridge is located.

5.4 As far as possible trains other than those requiring weighment shall not be passed or stabled on the loop line on which weigh bridge is installed. Transit loads not requiring weighment should be passed or stabled over the loop with the weighing equipment in switched off condition. (See para 4.8)

6.0 Duties of Engineering deptt.

6.1 Duties of PWI:

(a) The PWI shall maintain tangent and level (gradient not exceeding 1 in 300) tracks for at least 40 meters on either side of the weigh rails. The approach rails shall be 52 Kgs/m on ST sleepers (PRC sleepers preferably) with adequate ballast and maintained properly. The approach track should be maintained so as to allow smooth entry/exit on weigh rails. Creep anchors be provided to avoid creep.

(b) The PWI will ensure proper drainage of the track over the weigh bridge and adjoining track for 40 meters on either side of the weigh bridge.

6.2 DUTIES OF SSE(WORKS)

(a) The Engg Deptt shall be responsible for maintenance of the room, security grills on windows, doors and opening for air conditioners. All doors for the rooms shall be fitted with godown lock for ensuring security of the equipment.

- (b) A water connection near the weigh bridge should be provided and maintained for wetting of the earth pit.

7.0 Duties of Electrical Deptt.:

- 7.1 The AMC of the weigh bridge's associated electrical equipment which includes interalia UPS, air-conditioner, voltage-stabilizer, etc. necessary for proper operation of the weigh bridge, will be arranged by the Mechanical Department as covered under para 10.2. The Mechanical Department shall also be responsible for co-ordination with the contractor for this purpose.
- 7.2 The Electrical Deptt shall provide two separate 230 V. power supply points of adequate capacity, one for weigh bridge equipment and the other for AC and lighting load from the nearest SEB supply point. The conditioning of this power supply however, shall be the responsibility of the Mechanical Deptt.
- 7.3 The alternative arrangements for standby power supply through generating set, if any, and also the maintenance of the generating set, shall be by the Mechanical Department and these sets shall be operated by Commercial Department staff.
- 7.4 Provision of earthing and its maintenance as per IS 3043-1966 shall be ensured by Eletrical Department. The earth resistance and its continuity shall be subjected to annual checks.
- 7.5 The Electrical Deptt. shall maintain lights and fans inside the room and also in the general area around the weigh rails and track side switches for security reasons.

8. Duties of S&T department

- 8.1 S&T department shall maintain the jumpers for the track circuit wherever provided by passing the weigh rails.
- 8.2 RDSO type block joints shall be provided and maintained on both sides of the weigh rails to provide electrical isolation of weigh rails.

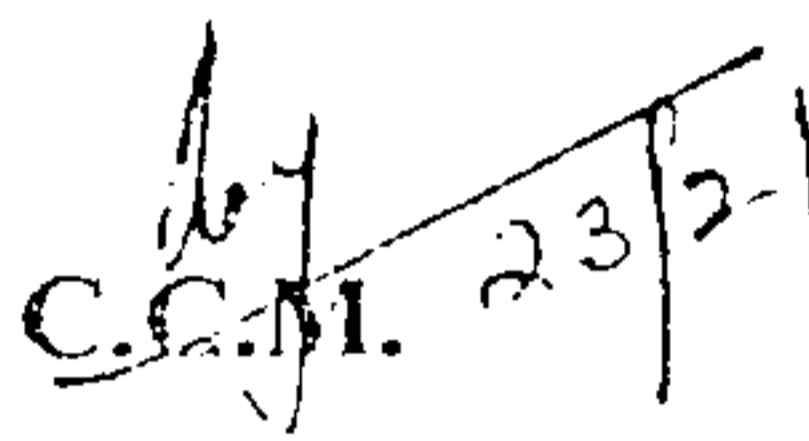
9. Duties of Security Deptt


INSPECTOR/ RPF Incharge of the area shall exercise the necessary superintendence for the security of the weigh bridge ensuring general security of the weigh bridge installation.

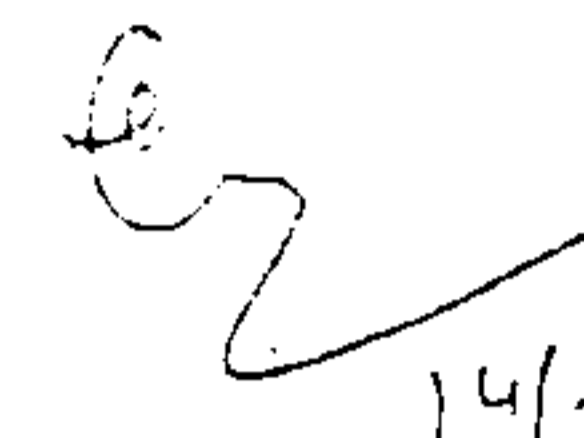
10. Duties of Mechanical Deptt.:

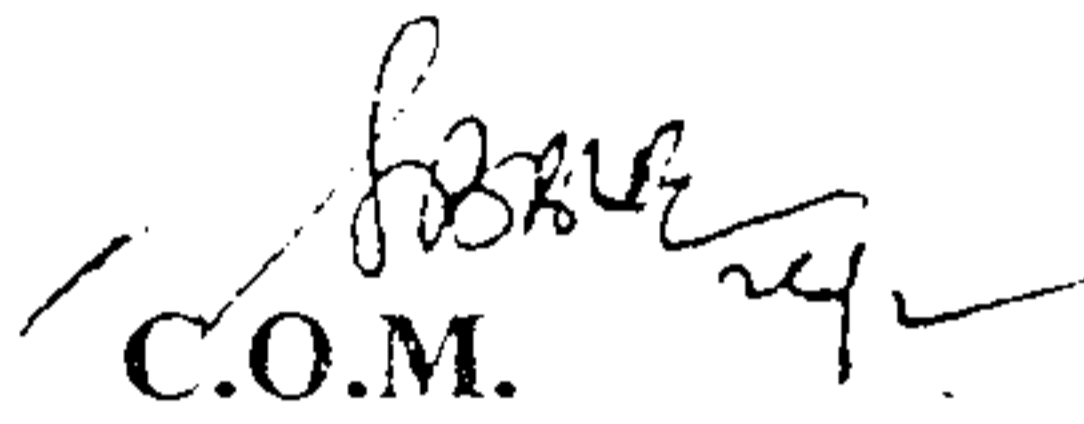
- 10.1 ADRM shall nominate an AME or SSE of Mechanical Deptt available at the nearest station for liaison with the supplier for preventive and breakdown maintenance during the warranty period as well as during the annual maintenance contract. The Comml. Deptt. shall be responsible for its utilisation and coordination with the Mech. Deptt for any preventive and breakdown

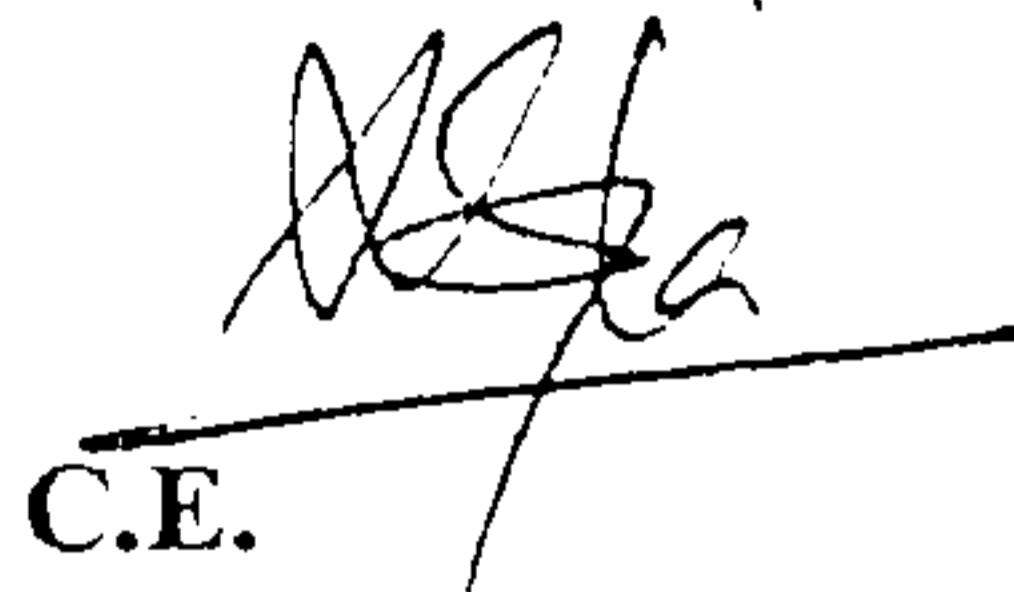
11. **GENERAL:** A joint check of the weighbridge installation should be carried out by the nominated officials of the Mech. Deptt., Engg. Deptt., Elect. Deptt., Comm. Deptt. and S&T deptt. once in three months and a report sent to ADRM.

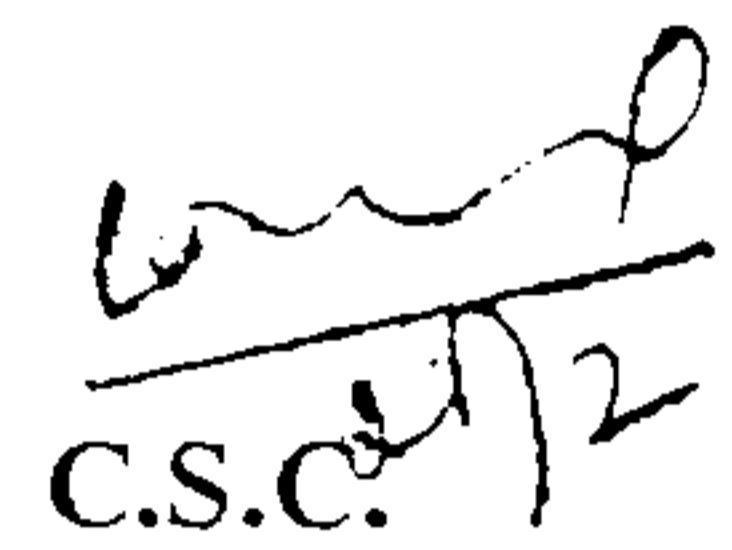

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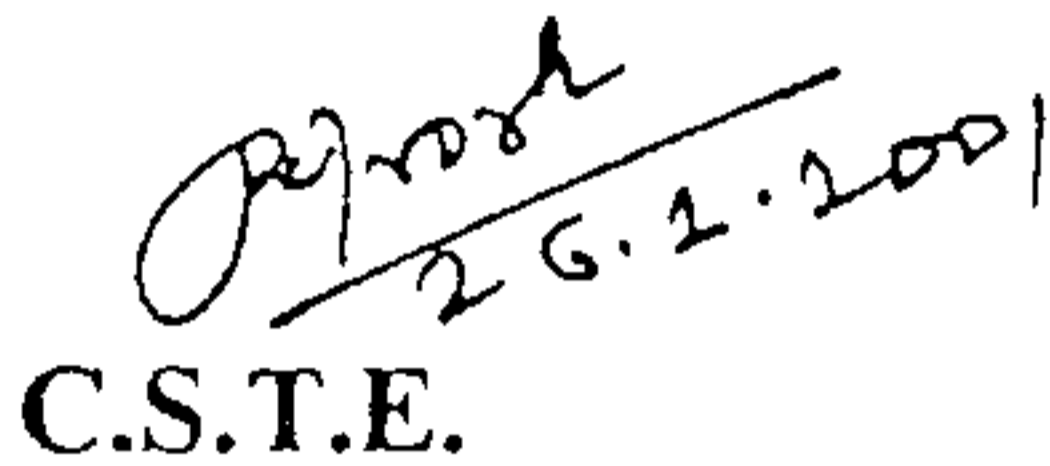

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