उत्तर पश्चिम रेलवे
प्रधानकार्यालय, बिजलीविभाग,
जवाहरसर्किलकेपास,
जयपुर- 302017

NORTH WESTERN RAILWAY
HEADQUARTER OFFICE,
ELECTRICAL BRANCH,
NEAR JAWAHAR CIRCLE
JAIPUR -302017

NWR-HQELECT(TR)/160/2020

Dated : 13.05.2025

**Sr.DME/DSL/BGKT**
**Sr.DME/P/AII, BKN, JP & JU.**

**Sub:** Mansoon preparedness –Electric locomotives.
**Ref.**:- RB letter no. 2005/Elect(TRS)/440/23 dated 08.05.2025

Vide above subject, RB issued Mansoon preparedness for Electric locomotives. Ref letter is enclosed herewith for your kind information and necessary action pl.

Enclosed: As above.

13.5.25

**SEE/loco**
**For CELE/NWR**

भारत सरकार Government of India
रेल मंत्रालय Ministry of Railways
रेलवे बोर्ड (Railway Board)

International Year of Cooperatives 2025
Cooperatives Build a Better World

**No. 2005/Elect (TRS)/440/23** **New Delhi, Dated: 08.05.2025**

General Managers (Elect.)
All Zonal Railways

**Sub: Monsoon preparedness-Electric Locomotive.**

1.0 Instructions already exist in ACTM para No. 30514 for taking precautions before onset of summer and monsoon seasons. Railways are advised to ensure seasonal precautions instructed vide ACTM para No. 30514.

2.0 Important measures to be taken for maintenance of electric locos are as under:-

2.1 Ensure completion of rainwater protection and pre-monsoon precaution works well before onset of monsoon.

2.2 Test the water tightness of loco body including roof by means of a high pressure water jet and seal all leakage points. Water jet test facility should be as per RDSO SMI No. RDSO/2017/EL/ SMI/0315 Rev '0' dt: 03.10.17. (It must be ensured that the loco is well away from live OHE to prevent the water jet coming into contact with live wires).

2.3 Special attention should be given to the following points and gasket for ensuring no water leakage: Loco body joints and hood joints.

- Joints of the mounting bases of roof equipments.
- Head light gaskets.
- Joints of look out glasses and corridor side glasses.
- Door gaskets.
- Sandbox gasket and covers.
- Joints of marker light.
- Cover of multiple operation/coupler sockets.
- VCB cover joints.
- Side body filter joints with superstructure.
- Glass shutters.
- Roof gasket.

Note: After the first rain the loco should be inspected thoroughly to detect and attend to leakage. Special attention should be paid to the above water leakage points

2.4 Cleanliness of roof gutters and drain pipes and accumulation of water on the roof.

2.5 Roof bus bars clamps should be greased to prevent accumulation of water.

2.6 Check the Cab floor above sand boxes for any water leakage into the sandboxes.

2.7 Roof joints with superstructure-roof gasket should be in good fettle (condition).

2.8 Proper functioning of all eight sanders by providing sand of size between 2 microns to 20 microns should be ensured.

2.9 Ensure arrangements for filling good quality of sand on all crew changing points.

2.10 Ensure availability of register where acknowledgement of drivers is taken after filling up sand.

2.11 Ensure entry in logbook regarding functioning of sanders and availability of sand.

2.12 Ensure working of sand drying plants and build up an adequate stock of dry screened sand at sanding points.

2.13 One cyclic overhauling of additional C-2 relay valves.

2.14 Proper working of wipers should be ensured.

2.15 Provision of head light dome and protection cap over horns and sand boxes.

2.16 Paraffin/petroleum jelly should be applied to the terminals of lead acid battery.

2.17 Check TM inspection covers and terminal blocks cover gasket and replace them, if necessary.

2.18 Check the bottom covers of the smoothing reactor for any damage, replace, if any cracking are observed.

2.19 Ensure proper functioning of water separation and drain cock of the pneumatic pipe system. During monsoon, the pneumatic system should be drained more often to discharge the accumulated water.

2.20 Provision of RTV compound on axle box to restrict water entry in axle box.Ensure gasket on Terminal box cover or provide RTV.

2.21 Provision of RTV compound on SPM pulse generator (PG) to restrict water entry.

2.22 High flood marks 9" should be painted on the cattle guard to give the indications to the drivers of water levels over the rails.

2.23 The transformer oil and tap changer oil should be tested for dielectric strength in a cycle before the outset of monsoon, and filtered if BDV is less than 40 kV.

2.24 Dissolved Gas Analysis (DGA) of transformer oil.

2.25 Ensure adequacy of transformer/GR oil levels and also ensure healthy condition of silica gel, replace if required.

2.26 Drain cock and sampling cock covers of transformers are to be sealed properly to avoid moisture entry.

2.27 Drain the compressed air pipeline manually where the automatic drain valves are removed and cocks are provided.

2.28 Apply a coat of anti-corrosive paint on the roof bolts while the loco comes to the shed.

2.29 Insulation resistance of vital equipment like TM SL lying on shop floor to be improved by baking in an oven, varnishing and proper covering.

2.30 One cycle calibration of QD relay setting for proper pick up and drop out current.

2.31 Ensure availability of fire extinguishers in locos.

2.32 Check water leakage from machine room filter and TM blower filter joints during water tightness test.

2.33 Replacement of Silica gel of Converter.

2.34 The converter oil should be tested for dielectric strength in a cycle before

2.35

2.36 the onset of monsoon, and filtered if BDV is less than 40 kV

2.37 Dissolved gas analysis of converter oil.

2.38 Insulation resistance of vital equipment like TM, Auxiliary blowers lying on shop floor to be improved by baking in an oven, varnishing and proper covering.

2.39 Checking of Megger value of Harmonic filter Resistance and cleaning if found less.

2.40 Battery box covers to be made watertight.

2.41 Side body air filters to be cleaned and maintain a dust free environment.

2.42 Fire prevention measure issued by RDSO vide letter No. EL/3.1.35/2 (Elect), dated. 29.01.2013 for three phase locos should be implemented.

8/5/25

(V. Venkatasubramanian)

**Exe. Dir. Elect. Engg. (RS)-I**