# (भारत सरकार) GOVERNMENT OF INDIA (रेल मंत्रालय) MINISTRY OF RAILWAYS (रेलवे बोर्ड) RAILWAY BOARD

No.2020/Sig/31/Misc/24/Precautions

New Delhi, Date: 11.10.2024

The General Manager, All Indian Railways

Sub:- Winter and Fog precautions for Signalling Systems.

A list of precautions for the winter and foggy weather is enclosed herewith for uniform adoption on Indian Railways.

These instructions should be followed scrupulously by the Railways to ensure timely completion of all activities well before onset of winter and foggy weather. Necessary coordination between the departments including S&T, Engineering, Electrical and Operating should be ensured by the Railways.

Encl: Annexure-I.

(रामेश्वर मीना)/ (Rameshwer Meena)

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कार्यकारीनिदेशक(सिगनल)/Executive Director (Sig)

New Delhi, Date: 11.10.2024

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S&T precautions to be taken for ensuring smooth train operation during Winter session and foggy weather:-

### 1. Modified Auto Signalling:

- a. The working of Modified Automatic Signaling system should be jointly tested with operating department. The working of "A" Marker Light & Signal post telephones should be especially checked. The Modified Semi-Automatic Signals and track circuits in automatic territory on Railways should be maintained to the highest standard by way of preventive maintenance so as to ensure 'zero' failure.
- b. Dedicated maintenance teams should be organized section-wise, who would be provided with all the maintenance materials/tools. Directed repair/maintenance should be carried out with immediate effect under supervision of JE/SSE.

### 2. Power Supply in order to prevent Signal 'No light' cases:

- a. Reliable and uninterrupted power supply for Signaling equipments should be ensured by proper maintenance of IPS and power supply sources such as AT & DG sets.
- b. Audit of ratings of all switching equipments like electrical joints, MCB, auto changeovers etc. should be done and Visual inspection to check that they are not burnt/getting heated should be ensured. The connection should be checked and tightened, especially where high currents are involved.
- c. DG sets provided should be tested and adequate fuel/diesel should be made available to ensure meeting with long power failure conditions.
- d. No Electric heaters should be connected to Signalling supply.

### 3. Visibility of Signals:

- a. Luminous paints/strips should be checked for their effectiveness on Signal Sighting Boards viz. Passenger and Goods warning boards.
- b. Highlighter grade luminous strips should be provided on Distant Signal to enhance visibility of Signal aspects to loco pilots.
- c. Hoods and side plates of the Signal units should be checked and attended on priority to ensure proper Signal visibility to the drivers.

### 4. Axle Counter:

- a. Proper adjustment of channel voltage and physical verification of deflector and tightness of the fittings.
- b. Availability of spares cards etc.
- Working of systems in standalone mode wherever redundancy is provided in media and systems.

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- d. Checking of manual as well as auto resetting features in case of dual detection arrangement.
- e. In case of dual detection, both systems should be monitored separately through Data Loggers alongwith generation of exception reports about mismatch.

## 5. Electronic Interlocking:

- a. Working of System A & B in standalone mode.
- b. Availability of the spares.

### 6. LC Gates:

- Yellow luminous strips should be ensured on interlocked L.C. gate booms for proper visibility.
- b. Alternative yellow and black painting of LC gate booms should be ensured.
- c. Wire run of Mechanical LC gates should be readjusted.
- d. Provision of stop board with retro-reflective/tape on sliding boom should also be ensured.

### 7. Track Circuits:

- a. RDSO type block insulation joints should be maintained and presence of free rail joints should be ensured on both the ends.
- b. All types of track bondings should be checked and replaced wherever necessary.
- Condition of insulation sleeve on OHE bond beneath rails to be ensured.

### 8. Points:

All point adjustments should be done properly, proper anti-creep arrangement as prescribed in IRPWM should be ensured.

#### 9. Maintenance:

- a. Inspection at officer's level and supervisory level, including night inspections, should be intensified during foggy weather for spreading more awareness and alertness among the maintenance staff.
- b. Signal Maintainers/Supervisors proceeding to attend Signal failures, should be allowed to board trains on priority in both directions viz. Attending failure and returning to their Head Quarter.
- c. All equipment like chargers, stabilizers, inverters should be properly sealed to prevent entry of pests like rats and mice.
- d. Luminous jackets/ Protective clothing, torch Light etc. to be ensured for S&T staff moving on line for the safety of staff.
- e. Functioning of door closing with datalogger.
- f. Staff should be counselled for ensuring their own safety and to follow safe working practices.

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