



No. L.326.OP/SPL DRIVE/33

Date: 22.10.2024

Sr. DEE /TRO/BB, BSL, NGP
Sr. DME/Fr& Op/ BB
Sr. DME/Op/ PA
DME (O&C) SUR

CEE OP Instruction No. 15/2024

Sub: Winter preparedness drive.

Ref: Railway Board's letter no. 2005/Elect(TRS)/440/23 dt. 21.10.2024

Railway Board has advised to ensure precautions for winter preparedness in winter season and foggy weather, vide letter mentioned under reference. The important pre-winter precautions mentioned in ACTM para 30514 and related instructions issued by RDSO/ Rly Bd for locomotives may be ensured by Loco Running staff and Trip sheds are as following:

A) Loco Running Staff:

1. Availability and working of FOG Safe Devices, with updated signal details/ routes.
2. Intensive Counselling of crew for working in Automatic territory, various authorities issued to crew, speed restrictions during foggy weather in automatic and absolute signalling, etc.
3. Adequate supply of detonators to be ensured.
4. As per Para "F" of Railway Board's letter No.98/Safety (A &R)/19/16 dated 25.10.2019, the Loco Pilot shall take action in regard to speed of the train during FOG as under:
 - i. During FOG, when the Loco Pilot in his judgment feels that the visibility is restricted due to fog, he shall run at a speed at which he can control the train, so as to be prepared to stop short of any obstruction; this speed shall in any case not be more than 75 KMPH.
 - ii. Loco Pilot to whistle frequently to warn the Gateman (where ever provided) and road users of an approaching train at level crossings.
 - iii. In Absolute Block System, speed should not exceed 75 kmph, as detailed at item(i) above.
 - iv. In Automatic Block Territory, the speed will be subject to the judgment of the Loco Pilot, as mentioned in item (i) above and shall not exceed as under:
 - a) After passing Automatic stop signal "Green", the speed not to exceed 75 KMPH.

- b) After passing Automatic stop signal "Double Yellow", the speed not to exceed 30 Kmph.
- c) After passing Automatic stop signal "Yellow", to run at a further restricted speed so as to be prepared to stop at the next stop signal.

Note:

- i. If Fog Safe Device is not available in locomotives or the device fails enroute, the max speed of 75 Kmph as indicated above, shall be reduced to 60 Kmph or less subject to judgment of LP (Follow the SR 4.08 -3, for both Absolute Block System and in Automatic Block Territory).
- ii. As provided under GR 4.16 (1) (b), a red tail lamp of approved design displaying a flashing red light, during day & night, to indicate the last vehicle check device in foggy weather should be provided and lit on the last vehicle.
- iii. First Stop Signal location kilometer chart of every station be provided to each LP, either as an easy to carry card or in the WTT.
- iv. Prevailing fog situation should be advised to crew and TM in lobby during "Sign ON".

Further, it should be ensure that the staff be advised and counseled regarding provisions in the G&SR and these instructions of the Board before the onset of fog. Each and every crew is to be imparted necessary training for up to 2 days about the systems of working of trains during fog.

B) Trip Shed staff:

1. Roof inspections to be carried out for proper cleaning of roof-line & pantograph insulators with a wet dry cloth for maintaining shining surface finish.
2. Joint checking of loco roof equipment's (including pantographs, cleaning of roof insulators and roof bar etc.) with TRD staff at sheds & trip shed.
3. Modification in mounting bracket of fixed contact and movable contact arm of HOM switch to increase the electrical clearance.
4. Re-greasing of pantograph servomotor to avoid jarring.
5. Silica gel for Transformer, Tap changer and Traction Converter must be in Good condition.
6. SMGR servomotor cylinders to be cleaned and re-greased and SMGR sealing gasket to be check for any air leakage.
7. Proper level of oil to be maintained in compressors and ensure that un-loaders are in working order.
8. Cleaning of battery terminals and application of petroleum jelly.
9. Working of Heaters/Blowers in Both Cabs.
10. Air Tightness of cab main doors, corridor doors & Window Shutters.
11. Working of Air Dryer, draining of Moisture from all the MR & ensure free movement of Drain cocks and proper functioning of Auto Drain valve.

12. Availability of dry sand in all sand boxes and sanders in working condition. All covers of sand boxes must be air tight.
13. Free Movement of Brake Cylinders should be ensured.
14. Headlights are cleaned and proper focus along with intensity to be ensured. Ensure proper working of flasher light, marker light, gauge lights etc.
15. Proper working of wipers should be ensured.
16. Proper cleaning of look out glasses, doors and windows of locomotives before leaving shed.

It is also advised that all divisions shall ensure it's preparedness for safe train operation in fog by havingadequate number of Fog Safe Devices for all crew (freight/passenger trains) in fog prone areas specifically. It should be ensured that Fog Safe devices given to crew, to alert crew in poor visibility condition while approaching signals, may be kept in healthy and working condition to ensure safety in train operation and training of crew for operation of the same during winter and foggy season.

Crew should be intensively counseled for working in Automatic territory, speed limits during foggy weather, various authorities issued to crew etc. for safe train operation.

Accordingly a One month drive is being launched to check winter preparedness. Ambush checks for ensuring above also to be carried out. All staff must be covered during the drive. Compliance of the above instruction may be ensured and report to be submitted in the following format:

1. No. of Supervisors/ CLIs involved.
2. No. of Locos examined.
3. No. of Ambush checks carried out.
4. No. of irregularities noticed.
5. Details of irregularities.
6. Action taken to rectify irregularity.
7. No. of irregularities attended.
8. No. of crew counselled (cadre wise).

DA: As above

 22-10-2024
(H. M. Sharma)
Chief Electrical Engineer(OP)

No. 2005/Elect(TRS)/440/23

New Delhi, Dated:21.10.2024

General Managers (Elect.)

All Zonal Railways.

Sub: Winter preparedness drive.

Ref: (i) Railway Board's letter of even No. dated 10.10.2023

(ii) Railway Board's letter no. 2021/M(L)/731/21 dt 22.11.2023

- 1.0** Instructions exist for undertaking essential precautions and special drive to check all locos prior to the commencement of winter season, so that typical failures attributed to low temperature and fog do not occur and the desired level of reliability is maintained.
- 2.0** With the ensuing winter season & foggy weather, it is advised that all Zonal Railways shall ensure its preparedness for safe train operation in fog by having adequate number of Fog Pass Devices for all crew (freight/passenger trains). Zonal Railways shall ensure that Fog Pass devices given to crew, to alert crew in poor visibility condition while approaching signals, may be kept in healthy and working condition to ensure safety in train operation and training of crew for operation of the same during winter and foggy season. Crew should be suitably counselled for working in automatic territory, following speed limits during foggy weather, etc as per extant Zonal instructions.
- 3.0** The important pre-winter precautions mentioned in ACTM para 30514 and related instructions issued by RDSO for **Electric** locomotives are reiterated as follows:
 - 3.1** During all trip inspections or roof inspections whenever carried out, proper cleaning of roof-line & pantograph insulators with a wet & dry cloth for maintaining shining surface finish may be ensured. Instructions laid down in RDSO SMI No. RDSO/ 2012/ El/SMI/0274, Rev.0, dated 29.03.2012 may be ensured by homing shed before onset of winter.
 - 3.2** Ensure joint checking of loco roof equipment (including pantographs, cleaning of roof insulators and roof bar etc.) with TRD staff at sheds & trip shed as a preventive measure.
 - 3.3** Modification in mounting bracket of fixed contact and movable contact arm of HOM switch to increase the electrical clearance issued by RDSO vide RDSO/2012/EL/MS/0405 (Rev.0), dated 03.01.2012.

- 3.4 Re-greasing of pantograph servomotor to avoid jamming.
- 3.5 Working of heaters/blowers in both cabs. Terminal Connection of cab heater cum blower assembly are to be modified as per RDSO modification No: RDSO/2011/EL/MS/408 Rev '0' dated 30.05.2012.
- 3.6 Air tightness of cab main doors, corridor doors, window shutters and sealing of ventilator covers.
- 3.7 Proper level of oil to be maintained in TFP, GR and Traction Converter.
- 3.8 Silica gel for Transformer, Tap changer and Traction Converter must be in Good condition.
- 3.9 SMGR servomotor cylinders to be cleaned and re-greased and SMGR sealing gasket to be check for any air leakage.
- 3.10 Air dryer must be in working order and isolation should not be permitted.
- 3.11 Draining of moisture from all MR and ensure free movement of drain cocks and proper functioning of Auto Drain valve.
- 3.12 Proper level of oil to be maintained in compressors and ensure that un-loaders are in working order.
- 3.13 Availability of dry sand in all sand boxes and all covers must be air tight.
- 3.14 TM inspection covers to be provided with gasket and ensure no air gap & locked properly.
- 3.15 Cleaning of battery terminals and application of petroleum jelly.
- 3.16 Free movement of brake cylinders. If found sluggish, overhauling should be done.
- 3.17 Proper lubrication of CTFs and Reverser Servomotors to be ensured.
- 4.0** The following important pre-winter precautions for **Diesel** locos should also be ensured:
 - 4.1 Headlights are cleaned and proper focus along with intensity to be ensured. Ensure proper working of flasher light, marker light, etc.
 - 4.2 Cab doors, Engine rooms and Nose compartment doors and their lock handles must be in working order.
 - 4.3 Sealing gasket in the Cab Doors and Engine Doors be checked to ensure no air leakage.
 - 4.4 Sand Boxes be checked, only dry sand to be filled and ensure its working.

- 4.5 Traction Motor Inspection cover sealing gaskets be checked to ensure that there is no air leakage.
- 4.6 Terminals of battery to be checked for sulphation, cleaning and petroleum jelly are applied on the terminals.
- 4.7 Break Cylinder adjustment to be carried out and re-greasing to be done.
- 4.8 Ensure the proper working of wipers.
- 4.9 Ensure proper working of Air-dryer and Auto Drain/Check valve.
- 4.10 Proper cleaning of look out door and window glass before the loco leaves the shed.
- 4.11 Ensure proper working of Gauge lights, Marker lights, etc.
- 5.0 Zonal Railways are advised to take necessary action and send compliance to this office on completion of drive at the earliest.
- 6.0 A drive may be launched to conduct ambush checks to sensitize field maintenance & running staff & keep records of the progress made on cyclic checks. Feedback may be communicated to Board on completion of the same. The above points are not exhaustive and any other instruction, issued from time to time, may be incorporated in the drive to ensure safety and reliability of electric and diesel locomotives.

DA : Relevant extracts from ACTM

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by Vikash Anand
Date: 2024.10.21
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(विकाश आनंद)

निदेशक विद्युत अभियांत्रिकी (चल स्टॉक)

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4. Dissolved gas analysis of transformer and converter oil.
5. Insulation resistance of vital equipment like TM, Auxiliary blowers lying on shop floor to be improved by baking in oven, varnishing and proper covering.
6. Ensure implementation of modification sheet no. RDSO/ELRS/MS/0328 (Rev.0) dtd. 29.10.2003 for provision of water discharge outlet in TM & oil Scavenge blowers.
7. Checking of Megger value of Harmonic filter Resistance and cleaning if found less.
8. Battery box covers to be made water tight.
9. Side body air filters to be cleaned and maintain dust free environment.
10. Provision of drain pipe in SCTM bottom half to drain out accumulated water.
11. 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.

WINTER PRECAUTIONS FOR CONVENTIONAL AC ELECTRIC LOCOMOTIVES

1. During all trip inspections or roof inspections whenever carried out, proper cleaning of roof-line & pantograph insulators with a wet & dry cloth for maintaining shining surface finish to be ensured. Further, application of Silicon oil to increase the hydrophobicity of insulator porcelain surface after cleaning and rounding off work on sharp edges of roof bar connections & fittings as per instructions laid down in RDSO SMI No. RDSO/2012/EL/SMI/0274, Rev'0', dated 29.03.2012 to be ensured by homing sheds before November.
2. Ensure joint checking of loco roof equipment (including pantographs, cleaning of roof insulators and roof bars etc.) with TRD staff at sheds & trip shed as a preventive measure.
3. Also, check flashover of roof insulators and roof line fittings as per RDSO's SMI no. RDSO/2012/EL/SMI/0274 Rev '0' dated 23.03.2012.
4. Regreasing of the servomotor of pantographs.
5. Ensure that all the four cab heaters/blowers are in working order.
6. Terminal connections of cab heater cum blower assembly are to be modified as per RDSO modification no. RDSO/2011/EL/MS/0408 Rev'0', dt. 30.05.12
7. The window shutter sealing gaskets to be checked and made air tight.
8. Ensure Cab doors and corridor doors locking handles are in working order. The door sealing gaskets should be held tight in the position.
9. Cab ventilator cover sealing should be perfect.
10. Main power transformer, Traction converter and tap changer breather silica-gel condition to be checked and replaced, if necessary. Proper Oil levels in TFP, GR & Traction converter to be checked and oil tested for dielectric strength.
11. Compressor oil baths to be checked and oil replaced, if necessary. Ensure unloaders are in working order.
12. SMGR sealing gaskets to be checked to ensure that there is no air leakage.
13. SMGR servomotor cylinders to be cleaned and regreased with recommended grease.
14. Ensure that Air dryer is in working order and isolation should not be permitted.
15. Draining of moisture from all MR and free movement of drain cocks to be ensured.
16. Ensure proper function of auto drain valves and air dryers.
17. Servomotors of CTFs & reversers to be lubricated afresh.
18. TM inspection cover sealing gaskets be checked to ensure that there is no air leakage.

19. Brake cylinder adjustment to be carried out and regreasing done. Free movement of brake cylinders to be ensured. If found sluggish, then overhauling should be done.
20. Terminals of battery to be checked for sulphation, cleaned and petroleum jelly applied on the terminals.
21. Sand boxes to be checked, wet sand to be removed and dry sand to be filled. All eight sanders are to be kept in working condition. Provision of gaskets to be ensured for air tightness.

The pre-winter precautions- provision of fogpass /fogsafe devices:

Fog Safe device: Check its availability and ensure it is in working order. (Use of Fog safe device during foggy and inclement weather as per Railway Board letter no.98/safety (A&R)/19/16 Dt. 25/10/2019).

- a. Instructions on train operation during foggy weather have been issued by Railway Board vide their letter referred above.
- b. Fog Safe devices are in use in many zonal Railways such as NCR, NR, NER, ECR, etc and being deployed similar to walkie-talkie (VHF sets) where crew collects and deploy Device during commencement of duty and return in home lobby after completion of duty. Device being mapped to specific route, above procedure is appropriate. Same procedure to be adopted in Central Railway
- c. Fog safe device is to be used in every winter season (usually spanning between November to February) and instruction have already been issued to ensure that running staff is properly trained & counselled in use of fog safe devices during foggy weather.
- d. Fog safe device deployment should be similar to walkie-talkie (VHF Sets). Portable fog safe devices to be kept charged in lobbies and to be carried with by crew during train operation in foggy weather.
- e. In this context, it is advised to ensure that adequate nos. of fog safe devices are available and in working condition for providing same to crew along with necessary arrangement for their charging, upkeep and operation.
- f. Fog safe device is not failsafe device therefore it should be used as an assisting equipment only. Crew should work as per G&SR and instructions issued time to time.
- g. LIs should monitor functioning of fog safe devices. If any correction is required for mapping it should be done on priority.

30514A DUTIES OF LOCO PILOT IN CASE OF CATTLE RUN OVER

When a Loco Pilot observes cattle on his track and according to opinion of Loco pilot the train's increased speed can result in cattle run over then Loco pilot shall control the speed of train by applying A 9 brake valve accordingly. Even after this cattle run over happens then Loco Pilot should stop the train and take the following actions to avoid the possible damages:

1. On the Flasher Light
2. Stop the train immediately
3. In case of any hindrance on the tracks remove it with the help of Railway Official and volunteers
4. Loco Pilot must inspect the Safety fittings of the engine and some side coaches for any damages or abnormalities caused due to run over.
5. In case of any damages or abnormalities seen, Loco Pilot must Report it to TLC and also mention the same in Loco Log Book.

