

विषय : परिचालन के दृष्टिकोण से ग्रीष्म और मानसून की जाँच।

संदर्भ : RB पत्र संख्या 2005/Elect(TRS)/440/23 दिनांक 17.02.2025.

प्रधान कार्यालय पत्र संख्या 147-Elect/TRS/6/2 दिनांक 24.04.2025.

उपरोक्त संदर्भित पत्र के माध्यम से, ग्रीष्म ऋतु की शुरुआत और आने वाले मानसून ऋतु के साथ, ऊपर संदर्भित पत्र के अनुसार मौसम की सावधानियों के तहत सभी चालक दल को यह निर्देशित किया जाता है कि वह निम्न मदों का अनुपालन अवश्य करें :

1. Axle box के तापमान की जांच जहाँ भी संभव हो करने के लिए तत्पर रहे । किसी भी असामान्यता के विषय में क्षेत्रीय TLC को आवश्यक कार्यवाही हेतु सूचित करें ।
2. इलेक्ट्रिक लोकोमोटिव में transformer, tap changer, MPH, traction converter और डीजल लोकोमोटिव में fuel oil और lube oil से किसी भी प्रकार के oil leakage की जाँच करें। सभी oil level को उनकी निर्धारित सीमा के भीतर होने की जांच करते रहे ।
3. यदि air drier isolated है, तो इसे लोको लॉग बुक में अवश्य दर्ज करें ताकि इसे जल्द से जल्द attend किया जा सके ।
4. सभी सैंडर्स के कार्यशील होने की सुनिश्चितता करें तथा यह भी सुनिश्चित करें कि सैंडिंग पाइप इस तरह से लगे हो कि सैंड लोको पहिए के नीचे ट्रैक पर ही गिरे। यदि इस संबंध में कोई अनियमितता मिले, तो इसे लोको लॉग बुक में UOR के रूप में दर्ज करें ।
5. सैंडर (PSA) के लगातार उपयोग करने से यह अप्रभावी हो जाता है तथा MR में गिरावट का कारण भी बनता है इसलिए लोको पायलट के द्वारा सैंडर्स का प्रयोग लगातार करने की बजाय रुक-रुक कर करना चाहिए ।
6. Wipers के कार्यशील होने की सुनिश्चितता करें तथा यह भी सुनिश्चित करें कि wipers के द्वारा lookout glass की सफाई ठीक प्रकार से हो रही हो। यदि इस संबंध में कोई अनियमितता मिले, तो इसे भी लोको लॉग बुक में UOR के रूप में दर्ज करें ।
7. लोकोमोटिव में निर्धारित प्रकार व संख्या में अग्निशामक यंत्र (Fire extinguisher) उपलब्ध होने चाहिए व यह भी सुनिश्चित करे की वह expire न हो । इन्हें expiry date से पहले बदल दिया जाना चाहिए। चालक दल को लोको में उपस्थित सभी प्रकार के अग्नि शामक यंत्रों को सही प्रकार से प्रयोग करने की पूर्ण जानकारी होनी चाहिए ।
8. यदि AC युक्त लोकोमोटिव में AC कार्यशील न हो तो ऐसे लोको को शेड से बाहर न निकाले।
9. DDU पर आये फाल्ट मेसेज को बिना पढ़े या नोट किए बिना एकनॉलेज न करें अन्यथा एक बार एकनॉलेज करने के बाद वह मेसेज DDU स्क्रीन से हट जाता है । ट्रेन संचालन के दौरान यदि ऐसा

कोई मेसेज आता है जिसके कारण ट्रेन को रोकने की आवश्यकता होती है तो लोको पायलट के द्वारा कोस्टिंग में ब्लॉक सेक्शन को साफ करने का प्रयास किया जाना चाहिए तथा उसके बाद मेसेज पर ध्यान दिया जा सकता है।

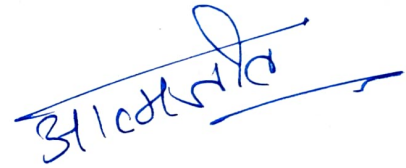
10. यदि एक auxiliary converter आइसोलेट है, तो TSD के अनुसार, auxiliary converter को काम पर लाने हेतु कण्ट्रोल इलेक्ट्रॉनिक्स को एक बार off/on करें। auxiliary converter के आइसोलेट होने पर वेंटिलेशन का स्तर कम हो जाता है, इसलिए यह गर्मियों में, auxiliary converter को काम पर लाने हेतु, ट्रेन के scheduled/unscheduled स्टॉप पर कण्ट्रोल इलेक्ट्रॉनिक्स को off/on करें। यदि गंतव्य पर पहुँचने के बाद लोको में कोई BUR isolated हो, तो ऐसे लोको को traffic उपयोग के लिए बुक न करें। NRHQ OC 001 का पालन करें।
11. Priority-1 संदेश पर तुरंत कार्यवाही की जानी चाहिए और DDS में इसकी कार्यवाही उपलब्ध रहती है। Priority-2 के मेसेज में तुरंत कार्यवाही की आवश्यक नहीं है सिवाय बैटरी वोल्टेज लो/ MCB-100 के ट्रिप होने के। Priority-1 के मेसेज में BPFA के जलने के साथ LSF1 की लाल बत्ती जलता/बुझती रहती है।
12. बैटरी से सम्बंधित Priority-2 के मेसेज पर समय पर ध्यान दें ताकि वह मेसेज Priority-1 में बदल कर लोको शट डाउन का कारण न बने। बैटरी चार्जर के इनपुट MCB 100 के ट्रिप होने पर हमेशा Priority-2 का फाल्ट मेसेज आता है। MCB 100 को VCB की खुली अवस्था में रिसेट करना चाहिए।
13. यदि Angle transmitter खराब हो जाता है, तो लोको पायलट के द्वारा गाड़ी की चालू हालत में स्विच 152 को पोजीशन 1 पर करके तुरंत मैनुअल मोड पर करके गाड़ी कार्य किया जा सकता है तथा इसके लिए गाड़ी रोकने की कोई आवश्यकता नहीं है।
14. Configuration switch 160 के द्वारा लोको की गति को 15 किमी प्रति घंटे तक प्रतिबंधित किया जा सकता है तथा इसकी पोजीशन को बदलने के लिए CE को off/on करने की आवश्यकता नहीं है। हालांकि, स्विच 160 को ऑपरेट करने से पहले BL key को D पर, थ्रोटल, स्पीड 0 व रिवर्सेर का न्यूट्रल पर होना व सुनिश्चित करें।
15. RDSO द्वारा जारी 3-फेज लोको के नवीनतम TSD का पालन करें और लॉबी, प्रशिक्षण स्कूलों तथा ऑन लाइन आदि में सभी रनिंग स्टाफ को तदनुसार काउंसलिंग करें।
16. HTC, machine room/coridoor और कैब की छत से बरसात के पानी के रिसाव होने की स्थिति में चालक दल लोको लॉग बुक में अवश्य दर्ज करें और ऐसे लोको को अनुरक्षण स्टाफ के द्वारा आउटपिट पर बिना attend करवाए न निकालें।
17. प्रत्येक चालक दल लोको लॉग बुक में अलग-अलग page का उपयोग करें और पुराने व नए UOR का स्पष्ट रूप से दर्ज करें। चालक के द्वारा लोको लॉग बुक में दर्ज प्रत्येक बुकिंग के लिए आउट पिट स्टाफ द्वारा स्पष्ट रूप से टिप्पणी दी जानी चाहिए।

18. कैब में बरसात के पानी के प्रवेश से बचने के लिए स्टेशन/यार्ड/आउट पिट आदि पर लोको को stable/park करते समय लोको के सभी दरवाजे और खिड़कियां ठीक से बंद करें।
19. लोको पर काम करते समय, पीछे के कैब के दरवाजे और खिड़कियां बंद रखें और ठीक प्रकार से लॉक करें।
20. रनिंग स्टाफ (LP, LPS & ALP) को NRHQ operating circular no 006 दिनांक 10.03.2021 और उसके बाद के corrigendum दिनांक 09.06.2023 (प्रतिलिपि संलग्न) के तहत इलेक्ट्रिक लोकोमोटिव में आग की रोकथाम के निर्देशों पर काउंसल करें।

नोट : उपरोक्त बिंदु संख्या 20 में NRHQ operating circular no 006 (Annexure-1.0(I)) दिनांक 10.03.2021 के सम्बन्ध में उल्लेखित मद को NRHQ पत्र संख्या 147-Elect/6/2 दिनांक 28.04.25 के अनुसार पढ़ा जाए।

अतः सभी मुख्य लोको निरीक्षक को यह निर्देश दिए जाते हैं कि तत्काल प्रभाव से एक महीने के लिए एक अभियान शुरू करें जिसमें सभी रनिंग स्टाफ (LP, LPS और ALP) को उपरोक्त मदों पर काउंसल करें और अम्बुश चेक करें तथा ड्राईव की रिपोर्ट को मंडल कार्यालय में साप्ताहिक आधार पर व पूरी रिपोर्ट दिनांक 26.05.2025 को अविलम्ब प्रस्तुत करें।

संलग्न: यथोक्त



वरिष्ठ मण्डल विद्युत अभियंता/परिचालन

प्रतिलिपि :-

- मण्डल रेल प्रबंधक/मण्डल कार्यालय/नई दिल्ली/उत्तर रेलवे-सूचनार्थ।
- मुख्य विद्युत अभियंता/परिचालन/उत्तर रेलवे, बड़ौदा हाऊस, नई दिल्ली – सूचनार्थ।
- मुख्य विद्युत लोको अभियंता/उत्तर रेलवे, बड़ौदा हाऊस, नई दिल्ली – सूचनार्थ।
- अपर मण्डल रेल प्रबंधक/परिचालन/नई दिल्ली/उत्तर रेलवे-सूचनार्थ।
- मण्डल राजभाषा अधिकारी/मण्डल कार्यालय/नई दिल्ली/उत्तर रेलवे-सूचनार्थ।
- प्रधानाचार्य/प्रशिक्षण केन्द्र – गाजियाबाद/तुगलकाबाद।
- मुख्य कर्षण नियंत्रक/दिल्ली/ उ.रे. – उचित कार्यवाही हेतु।
- समस्त मुख्य लोको निरीक्षक/दिल्ली मण्डल – आवश्यक कार्यवाही हेतु।
- समस्त लोको लॉबी नोटिस बोर्ड- आवश्यक कार्यवाही हेतु।
- बेसिक प्रशिक्षण केन्द्र/तुगलकाबाद/उत्तर रेलवे-आवश्यक कार्यवाही हेतु।



**Northern Railway**

Headquarters Office,  
Baroda House,  
New Delhi-110001  
Dated:24.04.2025

No.147-Elect/TRS/6/2

NRHQ Safety Drive No. 2

**Sr. DEE/Tr./OP/RSO,**

Northern Railway,

D.R.M. Office,

**JAT, FZR, UMB, NDLS, MB & LKO**

**Sub: Summer and Monsoon checks from operational standpoint.**

**Ref: RB's Letter No. 2005/Elect (TRS)/440/23 dated 17.02.2025**

With the onset of summer season and impending Monsoon season, it is advised to ensure seasonal precautions instructed vide letter under reference above, which are as follows:

- ✓ 1. Crews should be alerted to feel the temperature of axle boxes as often as possible. Any abnormality observed should be apprised to TLC for necessary action.
- ✓ 2. Crew should check for any oil leakages from transformer, tap changer, MPH, Traction Convertors and Oil pumps in Electric Locomotives and Lube oil and Fuel oil in Diesel Locomotives for necessary attentions. All oil levels must be monitored to be within prescribed marks.
- ✓ 3. If air drier is isolated, it should be booked in loco log book for attention at 1st instant.
- ✓ 4. Functioning of all sanders should be ensured and sanding pipes should be intact in such a way that sand should fall on track under the wheel. If any irregularity in this regard is observed, it should be booked as UOR in loco log book.
- ✓ 5. Regulated use of sanders (PSA) instead of continuous use is recommended. Continuous use of sanders is not only ineffective but can also lead to MR pressure and sand drop.
- ✓ 6. Wipers should be ensured in working order with affective cleaning of glasses. If any irregularity in this regard is observed, it should be booked as UOR in loco log book.
- ✓ 7. Ensure availability of prescribed type and number of fire extinguishers in loco without expiry. These should be replaced before expiry date. Crew should be trained to operate these when required.
- ✓ 8. Ensure that no locomotive should turn out from the shed without a functioning cab air conditioner.
- ✓ 9. Any fault message in DDS should not be acknowledged without reading and follow up as suggested. Once acknowledged, the message gets lost. Any such messages requiring train to stop, efforts should be made to clear the block section in coasting and then attention to the message can be given.
10. If any BUR is isolated, put MCE off-on to normalize it. Since the isolation of any BUR reduces the ventilation level, it is prudent that, in summers, putting MCE off-on should be tried again later on during stops, to normalize the working of BUR., Loco should not be booked for traffic use after reaching destination if any of the BURs is isolated. NRHQ OC 001 to be followed.



11. Priority-I fault messages have to be acted upon immediately and course of action is also available in DDS. Priority-II messages need not be acted immediately except BA voltage low/MCB 100 tripped. P-1 message come with a red flashing of LSFI in addition to BPFA.
- ✓ 12. Timely attention to Priority-II battery messages so that loco does not shut down with P1 message later on. Tripping of battery charger MCB 100 invariably leads to Priority-II battery messages. Switching ON MCB 100 has to be done with VCB in OFF condition.
13. In case Angle transmitter goes defective, immediately switch over to manual mode using switch 152 in running condition. There is no need to stop.
14. Configuration switch 160 restricts loco speed to 15 kmph & can be corrected without switching electronics OFF/ON in much lesser time. However, the loco has to be stopped before operating switch 160.
15. Divisions are also advised to follow the latest TSD of 3-Phase locos issued by RDSO and counsel all running staff in lobbies, training schools, on line etc. accordingly.
16. Any leakage of rainy water from roof in HTC, Machine room/Corridors and cabs should be mentioned in loco log book by Crews and loco should not be turned out without attention of this by maintenance staff at out pits.
17. Every Crew should use separate page of loco log book and mention UORs clearly, old and fresh UORs. Remark for every booking of Crew should be given by out pit staff clearly.
18. All doors & windows of loco to be closed properly, while stabling/parking loco at Station/ yd/out pit etc. to avoid of ingress of rainy water in cab.
19. While working on loco, rear cab doors & windows to be kept closed & locked properly.
20. Running staff (LP, LPS & ALP) should be counseled on the instructions for preventing fire in Electric Locomotives issued vide NRHQ Operating Circular No. 006 dated 10.03.2021 and subsequent corrigendum dated 09.06.2023 (Copy enclosed).

A drive should be launched for one Month with immediate effect in which all running staff (LP, LPS & ALP) should be counseled on above mentioned items and conduct ambush checks to sensitize running staff. Divisional officers are to involve themselves in the drive & effective corrective action to be taken on all the deficiencies & irregularities noticed. Record of progress should be kept on cyclic checks. The compliance report (point wise) should be sent to HQ office every week and the entire compliance report to be submitted to this office latest by 24.05.2025.

DA: As above

  
(Kamal Kant Rastogi)  
24/4/25  
Dy.CEE/Operations

Copy to:

1. PCEE/NR: for kind information please.
2. PCSO/NR: for kind information please.
3. CEE/Operations: for kind information please.



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



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

New Delhi, Dated:17.02.2025

General Managers (Elect.)  
All Zonal Railways.

**Sub: Summer preparedness - Electric & Diesel Locomotives.**

**Electric Locomotives**

- 1.0 Instructions already exist in ACTM para No. 30514 for taking precautions before onset of summer. Railways are advised to ensure seasonal precautions instructed vide ACTM para No. 30514. Copy of relevant pages of ACTM is enclosed herewith for ready reference.
- 2.0 In addition to the instructions contained in ACTM, some of the other important measures to be taken for maintenance of electric and diesel locos are as under :
  - 2.1 Ensure completion of summer precautions within 30<sup>th</sup> April 2025.
  - 2.2 Check for any oil leakage from transformer, Tap Changer (GR), MPH circuit, traction converter, oil pump and other accessories & ensure appropriate oil levels in all these equipment between minimum and maximum levels.
  - 2.3 Ensure topping up of water in batteries.
  - 2.4 Prescribed type and number of fire extinguisher should be provided on each locomotive and loco crew are trained to operate these when required.
- 3.0 Besides above, following instructions are also to be followed by homeing sheds and loco pilot working on electric locos to curb loco failure on line
- 3.1 Fire prevention measures for three phase locos issued by RDSO vide letter No. EL/3.1.35/2 (Elect), Dated 29.01.2013 should be implemented along with modification to provide mechanical locking arrangement in primary-over current relay of 3-phase locomotives as per modification sheet No. RDSO/2013/EL/MS/0420 Rev'0', dated 23.01.13, issued by RDSO should be ensured. Compliance of RB letter No. 2008/Elect (TRS)/113/5/Pt. dated 08.12.2016 on fire prevention shall be ensured.
- 3.2 Ensure temperatures strips of range 40-70°C and 60-100°C pasted on DE side bearing in compliance to the comprehensive maintenance instructions advised by RDSO vide SMI No. RDSO/2013/EL/SMI/0278 (Rev.'0'), dated 24.12.2013 for fitment of traction motor (6FRA6068) Drive End bearings NU2236 used in 3-phase locos during overhauling to avoid WAP7/WAG9 locos traction motor bearing failure.



- 3.3 Air delivery measurement in 3-phase locos to ascertain proper cooling and pressurization of machine room advised by RDSO vide SMI No. RDSO/2009/0255 (Rev."0") dated 06.05.2009, to avoid dust ingress and proper cooling of electronic cards as a schedule activity.
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- 3.4 Filter cleaning as per RDSO SMI No. RDSO/2016/EL/SMI/0288(REV.'0'), Dated 09.06.2016 shall be carried out.
- 3.5 Improvement measures to maintain pressure in the machine room and make it dust free as per RDSO guideline circulated vide letter No. EL/3.1.35/10 dated 11.04.16.
- 3.6 Cleaning of heat sink and filter of hotel load converters should be ensured as per RDSO's SMI No RDSO/2016 /EL/SM1/297 (Rev 1) dated 13.11.2024. Ensure redundancy in UIC for HOG operation, vide RDSO letter no EL/11.5.5/6 dated 27.06.2024
- 3.7 To Improve the effectiveness and reliability of wiper in electric locomotives, zonal railways should follow RDSO SMI no. RDSO/2024/EL/SMI/0333 Rev'0'dated 11.12.2024
- ✓3.8 Ensure that no locomotive should turn out from the shed without a functioning cab air conditioner.
- 3.9 Removal of dust from machine room by industrial vacuum cleaner and plugging leak holes by rubber grommet/gasket /RTV.
- 3.10 Provision of roof clamp shall be ensured.
- 3.11 Condition of air filters and OCU gasket to be ensured
- 3.12 Application of conductive grease on knife switch contact of BUR.
- 3.13 Implementation of RDSO modification No. RDSO/2018/EL/MS/468 (Rev. "0") dated 06.02.18 for Hotel Load Converter.
- 3.14 Modification to avoid cab changing in case of failure of processor cards of VCU as per RDSO/CLW's guideline.
- 3.15 Implementation of RDSO's modification sheet no. RDSO/2018/EL/MS/0475 for switch OFF/ON of control electronics.
- ✓3.16 Any fault message in DDS should not be acknowledged without reading and follow up as suggested. Once acknowledged, the message gets lost.
- ✓3.17 Any such messages requiring train to stop, efforts should be made to clear the block section in coasting and then attention to the message can be given.
- ✓3.18 If one auxiliary converter is isolated, then as per TSD, switching OFF & ON electronics is advised once for normalizing the working of auxiliary converter. Since the isolation of auxiliary converter reduces the ventilation level, it is prudent that, in summers, switching OFF & ON of electronics should be tried again later on during stops, to normalize the working of auxiliary converter.
- 
- ✓3.19 Priority-I message have to be immediately acted upon & course of action is also available in DDS. P-II message need not be acted immediately except for battery voltage low /MCB 100 tripped. P-I message come with a red flashing of LSFI in addition to BPFA.
- ✓3.20 Timely attention to Priority-II battery messages so that loco does not shut down with PI message later on. Tripping of battery charger MCB 100 invariably leads to Priority-II battery messages. Switching ON MCB 100 has to be done with VCB in OFF condition.



- ✓ 3.21 In case Angle transmitter goes defective, immediately switch over to manual mode using switch 152 in running condition. There is no need to stop.
- 
- ✓ 3.22 Configuration switch 160 restricts loco speed to 15 kmph & can be corrected without switching electronics OFF/ON in much lesser time. However, the loco has to be stopped before operating switch 160.
- ✓ 3.23 Zonal Railways are also advised to follow the latest TSD of 3-Phase locos issued by RDSO and counsel all running staff in lobbies, training schools, on line etc. accordingly.
- 3.24 Review progress of latest Reliability Action Plan as issued by RDSO & also available at its website.
- 4.0 In addition to above, to prevent fire hazards in locomotives, thorough blow outs, cleaning of underslung power equipment, removal of spillages from engine areas and functioning of fire safety equipment may also be ensure.

### **Diesel Locomotives**

- 5.0 As the summer season is approaching, Zonal Railways are also advised to ensure the following instructions to avoid fire incidences on diesel locomotives:
- 5.1 No leakage of Lube oil and Fuel oil.
- 5.2 Fuel cross over pipe is properly secured and is not rubbing with Engine block.
- 5.3 Engine room must be maintained oil free and no foreign material like cotton waste, etc are lying there.
- 5.4 The electrical cables should be adequately protected, covered from leaking diesel oil, which could spill on these cables.
- 5.5 Oil spillage from diesel engine in to the Alternator/Generator room to be prevented.
- 5.6 Leakage of oil through partition plate and leakage of oil from crank case exhaust pipe shall be checked.
- 5.7 IR values of power and control cables shall be checked.
- 5.8 To avoid sparks, wiring at junctions/interfaces should be tightened properly.
- 5.9 Tightness of terminals and sealing at terminal box to be checked and dust particles shall be cleaned periodically.
- 5.10 Carbon brush condition, brush spring pressure, freeness of carbon brush, arcing horn gap and commutator surface cleanliness shall be checked periodically.
- 5.11 Milli volt drop shall be checked across the WSR with traction motors in series and parallel conditions.
- 5.12 To prevent oil entry in to the traction alternator connection box, adequate sealing arrangement should be maintained.
- 5.13 It must be ensured that thermal insulation is provided on exhaust manifold and compressor intercooler pipes.
- 5.14 Radiator core should be cleaned periodically by blowing.

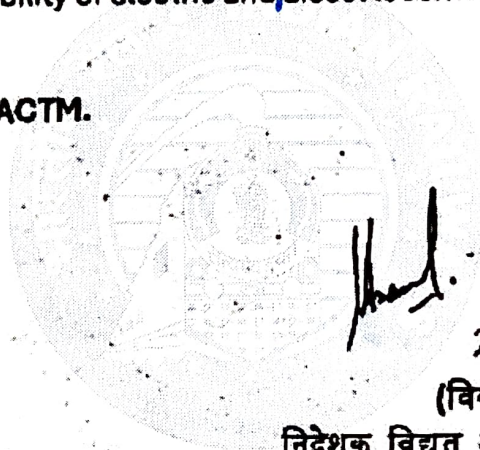
5.15 Static pressure of all Traction motor should be checked periodically and Traction motor air duct boots should be examined thoroughly and any suspect ones replaced. It should be also ensured that all the inspection covers of traction motors are tightened and sealed properly.

5.16 Prescribed type and number of fire extinguishers should be provided on each locomotive and loco crew are trained to operate these when required.

5.17 All rotating Electrical equipment like Traction Alternator, Traction Motor, Dynamic Blower Motor, radiator fan and Rectifier should be thoroughly blown out with dry compressed air.

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 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  
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(विकाश आनंद)

निदेशक विद्युत अभियांत्रिकी (चल स्टॉक)

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Northern Railway

Headquarters Office  
Baroda House  
New Delhi-110001

NRHQ Operating Circular No 006

No-230-Elect/TRS/202/Operational circulars

Dated: 10.03.2021

Sr. Divnl Elect Engineer/ RSO  
Northern Railway  
D.R.M. Office,  
New Delhi & Lucknow

Sr. Divnl Elect Engineer/ TRD  
Northern Railway  
D.R.M Office  
Ambala, Firozpur & Moradabad

Sr.Divn Mech Engineer/ Power  
Northern Railway  
D.R.M. Office,  
New Delhi

Sr.Divn Mech Engineer/O&F  
Northern Railway  
D.R.M. Office,  
Ambala, Firozpur, Lucknow & Moradabad

**Sub: Fire prevention in Electric locomotives from Operational standpoint.**

On 06.03.2021, fire case was reported in Loco no. 28131/KGJY while working train no. PIC between PLBS-BKRU section of EC Railways causing serious damages to Locomotive & jeopardizing train operations.

To ensure zero tolerance for fire related incidents from Operational standpoint, consolidated instructions for fire prevention measures by Crews, while working on conventional locos & three phase locos are enclosed herewith as Annexure for information and implementation.

It is advised to launch a special drive for one month to ensure counseling of all Crews on this behalf under intimation to this Office.

DA: Annexure

( Hitendra Malhotra )  
CELE

for Pr. Chief Elect Engineer

Copy to:

1. CRSE/Frt. for information & necessary action please.
2. CEE (Mobility), Northern Railway, Baroda House, New Delhi
3. Principal ETC/Ghaziabad



Annexure

**1.0) Conventional locos**

**1. Inspection of loco during normal course of run:**

- a) Loco shall never be left unmanned in energized condition.
- b) While taking over charge, Crew should check working of SL and also observe for any bad smell by standing there for at least one minute. If there is any bad smell, will inform to TLC.
- c) While taking over charge or at stoppage, Crew should check the under frame for any bad smell & temperature of axle boxes and also observe over heating sign on gear case/TMs and will get it checked by maintenance staff.
- d) Intactness of Arc chute of CGRs should be ensured by Crew.
- e) Proper working and sense of temperature of other auxiliary motors will also be checked by Crew while taking over charge.
- f) Any piece of paper/jute/duster etc. should not be left there in HTC. If it is so observed, it should be removed at 1<sup>st</sup> instant after grounding the loco. Do not accept Loco from Shed or TI shed if HT compartment, corridor and area near CP is not clean and oil free.
- g) MPJ not to be operated in moving loco.
- h) Necessary precautions to be taken before wedging any electromagnetic contactor and it should be wedged properly. C-118 never to be wedged. After wedging contactor, proper working of concerned auxiliary motor to be ensured and other necessary precautions to be taken.
- i) Any rotating switch should not be operated (except ZUBA & ZSMS) in closed position of VCB.
- j) No any relay (except Q100 & QRS) to be wedged in trailing loco in case of MU unit loco i.e. no any switch to be kept at '3'. If any relay of any auxiliary motor in trailing loco is required to be isolated to stop tripping, same motor to be isolated instead of isolation of relay.

- k) Working of LSOL in cabs of MU loco should be ensured by Crew and if LSOL glows, trouble in rear loco should be rectified.
- l) ALP will conduct inspection in corridor at interval of 30 minutes & after every neutral section. He will check working and temperature of auxiliary motors, level of T/F & GR and other abnormality and loco to be failed and made dead if there is any abnormality. Endorsement in loco log book shall be made by ALP in this regard, even all is found normal.

Further, if there is any isolation or any rotary switch on abnormal position, the corridor inspection will be conducted after interval of 15 minutes.

- m) Oil leakage from MPH & CPs should be checked and not allowed to work in long service even if it is slight.
- n) Oil leakage from GR & TFP should not be allowed and loco shall be failed and made dead immediately.
- o) Separate page of loco log book shall be used by each Crew and UORs observed by them with previous UORs shall be endorsed clearly by each Crew.
- p) Any relay to be isolated only if it is defective, proper working of concerned equipment to be ensured after isolation of relay. If equipment is not working properly, then the equipment itself should be isolated rather than the relay.
- q) Close monitoring of equipment should be done by Crew, if its safety relay is isolated.
- r) Leakage of rainy water in HTC/Corridor/Cabs should be noted by Crews and it should be endorsed in loco log book and TLC should be apprised.

2. Wedging of Q44 relay is strictly prohibited.

3. In case of QOP dropping:

- a) HTC to be checked for any smoke emission/bad smell, if any abnormality is observed, defective equipment to be isolated immediately. At first stoppage, Get down from loco & observe bad

smell/over temperature if any, from bogies (traction motors) and SL (smoothing reactors). Isolate defective equipment.

- b) If (a) is not successful, to reset QOP target, isolate concerned block and work the train upto engine changing station according to load and also follow TLC instructions.
- c) However, despite above, the QOP target drops, clearance of block section in coasting should be preferred if possible, instead of putting HQOP at 'OFF' position.
- d) If the Loco is not able to coast across the section and HQOP is required to be put at 'OFF', then stop the train for 2 min., observe bogies by getting down to see any bad smell/smoke from TM, SL. Also see HT compartment. If everything is normal, clear the block section with relevant HQOP in Off and loco will be declared failed.
- e) Frequent watch in HT compartment and SL has to be kept in case of QOP relay dropping.

**4. In case of QLM drop:**

Crew shall trouble shoot as per TSD Page no. 4.

**5. In case of QOA dropping:**

- a) Crew shall trouble shoot as per NR TSD Page no. 10.
- b) If HQOA is required to be put at '0', loco should be allowed to work only up to next suitable station with intensive examination of Aux power circuit and Aux motors after regular time interval of 10 min.

**6. In case of tripping via QVSI:**

- a) Crew shall trouble shoot as per NR TSD page no. 27.
- b) Loco shall not be allowed to work along with QVSI isolation but to be failed at next suitable station.

**7. In case of HOBA off:**

- a) Follow instructions given in NR TSD page no. 87.

**2.0) 3-phase locos**

- a) Whenever the VCB trips while hauling a train with 3-phase electric locomotives, the LP & ALP should immediately check/read the DDS message carefully on the display screen of computer in the cab for the associated fault.
- b) In case the VCB has tripped through primary Over Current Relay (78) with Priority 1 fault message, LP/ALP should immediately inspect the Machine Room carefully looking for any signs of fire/smoke, spread/ spillage of oil especially near converter/ transformer area and extinguish the same by using portable fire extinguisher.



- c) Primary over Current Relay in 3-phase electric locomotives is just like QLM relay in conventional electric locomotives and its operation should attract attention of the running staff in the same manner as for QLM relay.
- d) If no signs of fire/smoke are observed, LP should close the VCB **only once more**. If the same trips again with Over Current Relay, the control electronics will be automatically switched off and panto lowered by software. The LP/ALP should not try to switch 'ON' the control electronics or close VCB again and they should immediately ask for assistance from TLC.
- e) Any case of fire/smoke message from Fire Detection Unit (FDU) in subsystem 15 of priority 1 or 2 appearing on display screen with/without tripping of VCB should not be ignored and crew should inspect the machine room thoroughly and look for any signs of smoke/fire/overheating/spark/Bad Smell from equipment/joints and take further action accordingly.
- f) It should be ensured that the LP & ALP running 3-phase electric locomotives are fully conversant with the display messages of fault available in the display screen of the computer.

### **3.0) Fire Extinguisher**

- a) All LPs, ALPs and LPSs should be conversant with procedure of swift and correct operation of fire extinguisher & CO-2 gas cylinders in case of fire in loco.
- b) Crew should invariably check the expiry date of fire extinguisher. If any fire extinguisher has outlived its utility, replacement to be ensured by Shed/Trip Shed while shedding out Loco.
- c) If any fire extinguisher become overdue online, LP must inform to TLC and TLC will arrange to change the fire extinguisher at next availability point.

**Northern Railway**

Headquarters Office  
Baroda House  
New Delhi-110001

Corrigendum/NRHQ Operational Circular No. 006

Dated: 09.06.2023

Sr.Divnl. Elect. Engineer/RSO,  
D.R.M. Office,  
NDLS & LKO

Sr.Divnl. Elect. Engineer/TRD,  
D.R.M Office,  
UMB, MB& FZR

**SUB: Trouble shooting instructions for Loco Pilots for "Tripping through QOP" cases.**

**REF: (i) Operational Circular no. 006 dated 10.03.2021.**

**(ii) Special maintenance instructions no. RDSO/ELRS/SMI/195 of RDSO vide letter no. EL/3.1.3 dt. 28.01.1998**

Instructions were issued in case of QOP dropping by this Office in NRHQ Operational Circular no. 006 dated 10.03.2021 {item no. 1.0 (3)}, which are now revised as under:

**After tripping of VCB in conventional loco with QOP dropping target:**

1. If VCB trips through QOP, reset QOP, close VCB and resume normal traction.
2. In case, VCB trips again through QOP, put HQOP at 'OFF' position and inform the TLC at the first possible opportunity.
3. Loco Pilot to continue the journey with all the motors in circuit, keeping a watch on the smoke emission from the motors/H.T Compartment (which may take place in case, there are two earth faults simultaneously). In case, there is smoke emission from any of the motor then isolate the motor and work till destination, if loco is able to haul the load properly. If smoke still continue then fail the locomotive.

  
(Deepak Grewal)  
CELE

Copy: Principal, ETC/GZB: For necessary action

**Northern Railway**

Headquarters Office,  
Baroda House,  
New Delhi-110001  
Dated:28.04.2025

No.147-Elect/TRS/6/2

NRHQ Safety Drive No. 2

**Sr. DEE/Tr./OP/RSO,**

Northern Railway,

D.R.M. Office,

**JAT, FZR, UMB, NDLS, MB & LKO**

**Sub: Corrigendum on summer and monsoon checks from operational standpoint.**

**Ref: (i) This office letter of even number dated 28.04.2025.**

**(ii) RB's Letter No. 2007/Elect (TRS)/225/7(Neutral section) dated 12.10.2023**

With the onset of summer season and impending Monsoon season, it was advised to ensure seasonal precautions instructed vide letter under ref. (i) above, item No. 20 of which is revised as follows in compliance with RB's letter under ref. (ii) above.

Running staff (LP, LPS & ALP) should be counseled on the instructions for preventing fire in Electric Locomotives issued vide NRHQ Operating Circular No. 006 dated 10.03.2021 and subsequent corrigendum dated 09.06.2023 (Copy enclosed). Taking safety as paramount into consideration, it has been decided by the competent authority that inspection of machine room/HT compartment after every neutral section by ALPs/Co-LPs on run may be stopped. However, ALPs may be counseled to undertake the inspection of machine room/HT compartment after they have inspected the under gear at schedule/un-scheduled stoppages.

DA: As above

  
(Kamal Kant Rastogi)  
28/4/25  
Dy.CEE/Operations

Copy to:

1. PCEE/NR: for kind information please.
2. PCSO/NR: for kind information please.
3. CEE/Operations: for kind information please.





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



No.2007/Elect (TRS)/225/7 (Neutral section) New Delhi, Dt:12.10.23

**General Managers (Elect)**  
All Zonal Railways

**SUB: Inspection of Machine Room/HT compartment by ALP/Co-LP**

Instructions exist for ALP/Co-LP to inspect HT compartment/machine room after passing every neutral section on conventional locos on run. While this is possible in single/front loco, it is not possible on rear loco of a Multi-unit.

Further, there are no instructions for machine room inspection on run from the OEM on three-phase locos but ALPs/Co-LPs are counseled to inspect machine room after every neutral section, leaving LP alone in the driving cab.

Taking safety as paramount into consideration, it has been decided by the competent authority that inspection of machine room/HT compartment after every neutral section by ALPs/Co-LPs on run may be stopped.

However, ALPs may be counseled to undertake the inspection of machine room/HT compartment after they have inspected the under gear at scheduled/un-scheduled stoppages.

Zonal Railways are advised to take necessary action in accordance.

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Date: 2023.10.12  
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(विकाश आनंद)

निदेशक विद्युत अभियांत्रिकी (चल स्टॉक)

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**Northern Railway**

Headquarters Office,  
Baroda House,  
New Delhi 110001

No. 147-Elect/TRS/6/2

Date: 12.10.2023

**Sr. DEE/RSO,  
N. Railway,  
D.R.M. Office,  
UMB, NDLS, MB & LKO.**

**Sr. DME/O&F,  
N. Railway,  
D.R.M. Office,  
FZR.**

**Sub: Inspection of machine room/HT compartment by ALP/Co- LP**

**Ref: RB's letter no. 2007/Elect (TRS)/225/7 (Neutral section) dated 12.10.2023**

Please find enclosed the copy of letter under reference above, which is self explanatory. Accordingly, the following instructions are advised for counseling to running staff (LPs/ALPs) in all divisions.

There are instructions for inspection of HT compartment/machine room by ALP/Co-LP after passing every neutral section while working on a conventional loco except rear locos of Multi-unit. Although, no instructions for machine room inspection on run from the OEM side on three-Phase locos, yet ALPs/Co-LPs are counseled to inspect machine room after every neutral section and leave the LP alone in the driving cab.

Keeping in view of safety, the inspection of machine room/HT compartment by ALPs/Co-LPs after every neutral section on run may be stopped.

However, after inspecting the under gear at scheduled/un-scheduled stoppages the ALPs/Co-LPs may be counseled to inspect the machine room/HT compartment.

In accordance, divisions are advised to ensure counseling of all running staff (LPs/ALPs) and send the compliance report to this office at the earliest.

DA: As above

  
(Deepak Grewal)

Chief Electrical Loco Engineer

Copy to:

- 1) Principal/ETC/GZB & DTC/LDH, TKD & AMV: for necessary action please.