

Northern Railway

Headquarters Office
Baroda House
New Delhi-110001
Dated: 07.06.2023

Corrigendum/NRHQ Operational Circular No.11 & 18

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

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

SUB: To arrest failure of OHE due to repeated tripping and restrict damage to OHE.

REF: CEDE's note on e-office dated 31.05.23

Instructions were issued regarding "action to be taken by Crew of electric engine after getting sign of no tension in OHE or flashing from roof or OHE vide NRHQ Operational Circular no. 11 & 18 dated 03.06.21 & 20.12.22. To arrest failure of OHE due to repeated tripping and restrict damage to OHE in case of pantograph entanglement with OHE/foreign body, it is advised that Crew of Electric engine & TLCs are also to follow instructions as below in addition to instructions issued already:

1. To avoid damage to OHE & pantograph in case of pantograph entanglement with OHE or any foreign material:

Loco Pilot should lower pantograph immediately and train should be stopped by applying emergency brakes in the following conditions:

- i) If there is flashing/abnormal sound from roof or damage to pantograph is noticed.
- ii) If any flashing/damage to OHE, OHE wire/cantilever part hanging is observed.
- iii) If there is vibration in OHE or swinging of OHE is observed.
- iv) If any foreign material (cloth, polythene, wire, cable, rope, tree branch etc.) is hanging on OHE.

This will avoid damage to OHE & pantograph in case of pantograph entanglement with OHE or any foreign material. Train to be moved only after checking and talking to TLC/TPC.

2. In case of transient tripping in OHE:

- i) ALP shall immediately (within 05 second of tripping) look back and observe his train for any abnormality and ensure pantograph & OHE are normal. In case any abnormality is observed in pantograph or OHE, LP should lower pantograph immediately and train should be stopped by applying emergency

brakes. Train to be moved only after talking to TLC/TPC. But, if everything is observed normal, LP shall close VCB and resume normal traction.

- ii) When driver notices OHE tripping simultaneously with the tripping of the VCB on the Loco, it is most probable that the OHE tripping is due to fault on the loco. In such a case, ALP shall immediately (within 05 second of tripping) look back on the roof of loco to observe any abnormality and ensure pantograph & OHE are normal. If everything is observed normal, LP shall close VCB and resume normal traction. However, if again OHE trips simultaneously with tripping of VCB, the LP should lower the pantograph and inform the TPC/TLC. LP should not try to close DJ without consultation with TLC/TPC if OHE trips simultaneously with VCB twice.
- iii) In case of any abnormality related to OHE or abnormality in loco which may be a cause of OHE tripping or OHE tripping simultaneously with VCB occurs more than once is reported to TLC by LP, TLC should immediately inform to TPC and TLC should not give any instruction to LP for DJ closing/pantograph changing without consulting TPC.

All Crew & TLCs may be counselled accordingly.



(Deepak Grewal)

CELE

For Prin. Chief Electrical Engineer

Copy:

- 1. CEDE : For kind information please
- 2. Principal, ETC/GZB : For necessary action

Northern Railway

Headquarters Office
Baroda House
New Delhi-110001

NRHQ Operating Circular No 011

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

Dated: 03.06.2021

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. Divnl Mech. Engineer/ Power

Northern Railway, D.R.M. Office, **New Delhi**

Sr. Divnl Mech. Engineer/ O&F

Northern Railway, D.R.M. Office, **Ambala, Firozpur, Moradabad & Lucknow**

**Sub: Action by Crew of Electric engine after getting sign of
No tension in OHE or Flashing on roof**

Ref: SR 17.09/5(3), 17.09/6 & 17.09/7, SR 5.23/3(c), S.R.G.25, G & SR 6.03 and GR 9.10.

Pantograph of loco 22653/TKD was entangled with OHE while working T.No. 02217 in block section DLP-KGF in MB division on date 16.05.2021. Crew of loco did not stop the train even after noticing this and cleared block section in rolling at KGF causing SM/KGF to grant line clear to DLP for the following train i.e. KNZ load. This resulted in Pantograph of loco 31331/GMO of this train also getting entangled with OHE at the same site. This 2nd incidence of entanglement of pantograph was avoidable if Crew of T. No. 02217 had not cleared block section but had stopped train in block section and informed the Control.

In view of this incidence, it is advised to counsel all LPs and ALPs for possible reasons of tripping of supply in OHE and action to be taken by them to ensure safe operation which is as follows:

1. If there is flashing/ sound from roof or damage to pantograph is noticed, Loco pilot should put ZPT on '0' position/ lower the pantograph immediately. Train must be stopped by applying emergency brakes or BPEMS may be pressed immediately if provided in Driver desk. This will avoid damage to OHE if Pantograph is entangled. Train to be moved only after checking and talking to TLC/TPC.
2. **In case of transient tripping in OHE:** LP shall keep a sharp lookout on his own and adjacent tracks and also OHE. ALP shall look back and observe his train for any abnormality and also ensure pantograph and OHE are normal. ALP shall also check his loco for any abnormality in machine room/HTC and safety relays etc. Guard of the train shall also be informed by LP/ALP

accordingly for the purpose of lookout for any abnormality.If everything is observed normal, LP shall close VCB and resume normal traction. But if any abnormality is observed, required necessary action shall be taken & protection shall be done immediately as per instructions contained in para G & SR 6.03 and GR 9.10.

3. In case of tripping in OHE is not transient and remains continuous:

- (i) Crew shall switch 'ON' flasher light and shall control the speed of train to make himself able to stop it before any obstruction or 1st emergency socket (which are located along with DN track after every km.), whichever of both becomes earlier. (This controlled speed of train shall not exceed 60kmph at night).
- (ii) After stopping train, Crew shall communicate with TPC/Control directly or through TLC to know the reason for no tension in OHE. The Crew shall act according to advice of Control. **All Crews should be conversant with landline BSNL/MTNL & mobile numbers of TPCs/TLCs of the sections, over which they are learnt to work, for the purpose of fast communication. These should be saved in their mobile phones.**
- (iii) If Crew is unable to contact TPC/Control/TLC immediately, ALP shall be deputed by LP to get down from loco to check his loco and train with Guard in order to look for any abnormality for any defect.
- (iv) After checking train by ALP & Guard, if any abnormality is found, TPC/Control/TLC shall be informed by LP/Guard (through any of the available means of communication) for this and also assistance required, if any. They shall act in accordance with advice of Control.
- (v) Protection of train shall be done by LP and Guard as per GR 6.03 & GR 9.10 as the case may be, if required.
- (vi) In case, if any abnormality is not observed by ALP & Guard, flasher light of loco shall be switched 'OFF'.

- (vii) If in the meantime, supply in OHE is observed restored by LP, he shall call back ALP on loco and resume normal traction after getting starting signal from Guard after reaching him back in Brake van.
- (viii) In addition to above, loco and train shall be secured by Crew to avoid rolling down as per extant SR 5.23/3(c) or/and S.R.G.25, as the case may be.
- (ix) After restoration of supply in OHE, train shall be re-started by LP only after recreation of BP/FP pressures in train and thereafter conducting BP continuity test with Guard and thereafter releasing brakes in loco, wagons/coaches. Brake power and feel test also to be conducted by LP after restarting train.
- (x) CLIs to explain above instructions to the crew, besides other instructions contained in G & SR, Operating Manual and ACTM .

**Signed by Hitendra
Malhotra**

Date: 03-06-2021 16:26:00

(Hitendra Malhotra)

Reason: Approved

CELE

For Pr. Chief Elect. Engineer

Copy to: 1) CRSE/O & F

2) Principal Electric Training Centre, Northern Railway, Ghaziabad

NRHQ Operating Circular No. 18

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

Dated: 20.12.2022

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. Divnl Elect. Engineer/ RS,

Northern Railway, Electric Loco Shed, **Ghaziabad, Ludhiana & Saharanpur**

Sr. Divnl Mech. Engineer/ DSL

Northern Railway, DSL Loco Shed, **Tuglakabad, Ludhiana & Lucknow**

Sub: Flashing from pantograph/OHE

Various cases of flashing on Pantograph of loco/OHE have occurred frequently during night hours resulting tripping of the OHE and detention to other trains as repercussions. In order to prevent recurrence of these incidences, following instructions are issued for compliance:

1. Insulators at roof of the Loco to be cleaned during Schedule/TI/STR/unscheduled visit of the Locos at Out Pits and Loco Sheds as instructed in SMI no. EL/2.2.1 dt. 29.03.12 issued by RDSO.
2. Stipulated TIs of freight locos should be carried out to the extent possible.
3. If flashing is observed by LP from pantograph/OHE resulting tripping of the OHE, pantograph of the loco to be lowered immediately.
4. If any damage to pantograph or OHE is noticed, train to be stopped as per instructions contained in NRHQ OC-11 dt. 03.06.2021.
5. If no any abnormality in OHE or pantograph is observed, it should be tried by raising another pantograph and if same problem exists with another pantograph too, loco to be made dead and TPC/TLC should be intimated accordingly. Not to mention Train/Loco should be secured properly as per SR 5.23 to avoid rolling down.
6. Loco thus made dead should be checked jointly by OHE & Loco representative to ascertain the root cause behind flashing i.e. internal or extraneous factors leading to flashing. Representative of traffic & RPF also to be called if there is any clue/doubt of foreign material on roof of the loco.

It is advised to definitely ensure implementation of the above instructions for safe & punctual operation.



(Pankaj Kumar Singh)
Chief Electrical Loco Engineer

Copy to:

1. PCEE for kind information please
2. CRSE/O&F for necessary action
3. Principal, ETC/GZB for necessary action