

I/390443/2026

**ERN RAILWAY**

No. EL/81/2/TRD Spec. &amp;Drg.

प्रधान कार्यालय, जयपुर  
Headquarter Office,  
Jaipur - 302 017  
E mail:  
nwrhatrd@gmail.com

Dated: As signed

**Sr.DEE/TRD& GSU,**  
**AII, BKN, JP & JU.**

Sub:-Circulation of Advance Correction Slip No.16 &17 to Railway Manual of AC Traction (ACTM) Vol.-II Part I.

Ref: (i) Director (TrD) Railway Board's Letter No:2022/EEM/161/8/Punct-Part (2) Dated:21.05.2026.

(ii)Director (TrD) Railway Board's Letter No:2022/EEM/161/8/Punct-Part (3) Dated:21.05.2026.

&lt;&lt;&lt;&gt;&gt;&gt;

In reference to above subject, please find enclosed herewith the Advance Correction Slip No.16 &17(Modification/Revision) to Railway Manual of AC Traction (ACTM) Vol. II Part I Para 20322, Annexure 3.01 and 3.03 and Para 20321 respectively issued by Rly. Board's. This is for your kind information and compliance please.

DA.: As above.

Digitally Signed by  
लोकेन्द्र दत्त गौतम  
LOKENDRA DATT GAUTAM  
Date: 27-05-2026 09:20:27  
Reason: Approved

**(LD Gautam)**

Dy.CEE/Project-II  
for Principal Chief Electrical Engineer

Copy to:(i) CEE/Project: for information please.  
(ii)CEE/C/JP: for information please.

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

No.2022/EEM/161//8/Punct-Part(2)

New Delhi, Dt. 21.05.2026

The General Manager

All Indian Railways including Metro Railway/Kolkata, CORE/Prayagraj, ICF/Chennai, CLW/Chittaranjan, RCF/Kapurthala, MCF/Raebareli, DLW/Varanasi, RWF/Bangalore

The Chief Administrative Officers,  
DMW/Patiala, RWP/Bela

Director General,  
RDSO/ Lucknow and NAIR, Vadodara.

Chief Commissioner of Railway Safety, Lucknow.

CRS/ Northern Circle/ Central Circle/ Eastern Circle/ Southern Circle/ South Central Circle/ South Eastern Circle/ Western Circle.

Commissioner of Metro Railway Safety/Delhi

Director General/Director,  
IRIEEN, Nasik and Indian Railway Centre for Advance Maintenance Technology, Gwalior

Chairman & Managing Director,  
RVNL, DFCCIL, MRVC, IRCON, RITES, PGCIL, New Delhi.

**Sub: Advance Correction Slip No. 16 to Railway Manual of AC traction (ACTM) Vol. II Part I Para 20322, Annexure 3.01 and 3.03 with regard to incorporation of provision of Drone patrolling in ACTM.**

Please find enclosed herewith the Advance Correction Slip No. 16 (Modification/Revisions) in Para 20322, Annexure 3.01 and 3.03 of Railways Manual of AC Traction (ACTM) Vol. II Part I with regard to incorporation of provision of Drone patrolling in ACTM, for your information and necessary action.

  
21/05/2026

(Akash Sharma)

Director(TrD)

Phone: 011-47845421

Copy to : PPS to M/TRS, PPS to M/Infra, PPS to MOBD, PPS to AM/RE, PPS to AM/Traction, PPS to AM/CE, PPS to AM/Signal, PED/Safety, PED/Vig, PED/GS, PEDEE(RS), ED/GS(Elect), PEDEE(Dev.), EDEE/G, ED/EE/Safety, EDCE(G), DEE(RS), DEE(G), Director(Safety), PCEE/All Zonal Railways & PUs, CAO/CORE/ALD, PED/TI/RDSO, RB(Library).

**ACTM Correction Slip No. 16 dtd. 05.2026**

**Annexure-I**

<b>ACTM Para</b>	<b>Existing Provision</b>	<b>Proposed Modification</b>
ACTM Vol II Part I Para 20322	<p><b>20322 Foot-Patrolling of OHE</b></p> <ol style="list-style-type: none"> <li>1. The object of foot-patrolling is to made visual inspection of every part of OHE (including feeder line) so that any defect and abnormalities noticed are recorded and reported to the maintenance gangs for attention.</li> <li>2. An experienced OHE Technician (accompanied by a Assistant if deemed necessary by local conditions) should be deputed to patrol the section on foot by day, so as to cover every part of the section including yards once a fortnight and suburban sections once a week. If this patrolling is done thoroughly, many of the defects will be noticed at the incipient stage, before they develop into major defects. JE Chargeman should foot patrol the entire section once in six months.</li> <li>3. The Technician on foot patrol should be equipped with signal flags, an emergency telephone instrument and essential tools required for attending to defects on the spot e.g. spanners for tightening bond connections, Bolts and nuts for bonding, small chopper for clearing small bushes and creepers over the OHE mast, spring balance for pulling the RE for checking free movements.</li> </ol>	<p><b>20322 Patrolling of OHE</b></p> <p><b>20322 a. Foot-Patrolling of OHE</b></p> <ol style="list-style-type: none"> <li>1. The object of foot-patrolling is to made visual inspection of every part of OHE (including feeder line) so that any defect and abnormalities noticed are recorded and reported to the maintenance gangs for attention.</li> <li>2. An experienced OHE Technician (accompanied by a Assistant if deemed necessary by local conditions) should be deputed to patrol the section on foot by day, so as to cover every part of the section including yards once a fortnight and suburban sections once a week. If this patrolling is done thoroughly, many of the defects will be noticed at the incipient stage, before they develop into major defects. JE / SSE should foot patrol the entire section once in six months.</li> <li>3. The Technician on foot patrol should be equipped with <i>modern tool kit (RDSO guideline vide letter no. RDSO-TIOLKO(OHE)/60/2020- O/o PED/TI/RDSO dated 25.02.2026 or latest), binoculars and other essential tools</i> required for attending to defects on the spot e.g. small chopper for clearing small bushes and creepers over the OHE mast, etc.</li> <li>4. The Technician on patrol duty should particularly look for the following –             <ol style="list-style-type: none"> <li>a. Chipped or <i>flashed</i> or damaged insulators.</li> <li>b. Displaced fittings and droppers.</li> <li>c. Excessive sagging or hogging of contact wire/ <i>feeder wire/AEC</i>.</li> <li>d. Whether compensating plate is tilted.</li> <li>e. Free movement of auto tensioning device and position of counterweight with reference to upper and lower limits of movement marked on the mast.</li> <li>f. Presence of protective screens, caution and warning boards and Anti climbing</li> </ol> </li> </ol>

4. The Technician on patrol duty should particularly look for the following –
  - a. Chipped or damaged insulators.
  - b. Displaced fittings and droppers
  - c. Excessive sagging or hogging of contact wire
  - d. Whether compensating plate is tilted
  - e. Free movement of auto tensioning device and position of counterweight with reference to upper and lower limits of movement marked on the mast.
  - f. Presence of protective screens, caution and warning boards and Anti-climbing devices.
  - g. Structural soundness of height gauges at level crossings.
  - h. Bird nests and pieces of stray wire likely to cause short circuits and branches of trees likely to infringe the OHE..
  - i. Defective bonds and earth connections.
  - j. Oil leakage if any from AT and drop out fuse position.
  - k. Any obstructions including tree branches in the way of free movement of pantograph and trains.
  - l. Signs of heavy sparking when trains pass.
  - m. Isolators blades being fully in and for signs of sparking or overheating of isolators as also
- g. Structural soundness of height gauges at level crossings and *presence of danger board*.
- h. Bird nests and pieces of stray wire likely to cause short circuits and branches of trees likely to infringe the OHE.
- i. Defective bonds and earth connections.
- j. Oil leakage if any from AT and drop out fuse position.
- k. Any obstructions including tree branches in the way of free movement of pantograph and trains.
- l. Signs of heavy sparking when trains pass.
- m. Isolators blades being fully in and for signs of sparking or overheating of isolators as also condition of locks.
- n. General condition of switching stations en-route.
- o. Tilting of masts especially on high banks and masts with sand core foundations.
- p. Number plates
- q. *Abnormality in SNS/LWSI/Section Insulators.*
- r. Any other abnormal/unusual situation. Major defects noticed by the Technician which endanger safety shall be reported forthwith to TPC through the nearest telephone/mobile. Full details should be given to enable the TPC to decide on the course of action to be taken and if required to regulate train movements in the affected section.
5. The Technician should himself attend to and rectify such of the minor defects (e.g. loose bond connections) which can be rectified by him on the spot without special assistance. To facilitate this, he shall carry with him a few essential tools. Other minor defects should be noted by him in his diary and entered by him in a TDMS (see para 20349) maintained for the purpose in the depot/sub depot. The roster of patrolling Technicians should be so arranged that they will be able to return to the depot sub-depot for submission of report as above before going off duty for the day. Where this is not convenient, the Technician must report the defects on

	<p>condition of locks</p> <p>n. General condition of switching stations en-route.</p> <p>o. Tilting of masts especially on high banks and masts with sand core foundations.</p> <p>p. Number plates</p> <p>q. Any other abnormal/unusual situation</p> <p>5. Major defects noticed by the Technician which endanger safety shall be reported forthwith to TPC through the nearest telephone/mobile. Full details should be given to enable the TPC to decide on the course of action to be taken and if required to regulate train movements in the affected section.</p> <p>6. The Technician should himself attend to and rectify such of the minor defects (e.g. loose bond connections) which can be rectified by him on the spot without special assistance. To facilitate this, he shall carry with him a few essential tools. Other minor defects should be noted by him in his diary and entered by him in a Register (see para 20351) maintained for the purpose in the depot/sub-depot. The roster of patrolling Technicians should be so arranged that they will be able to return to the depot sub-depot for submission of report as above before going off duty for the day. Where this is not convenient, the Technician must report the defects on telephone/mobile to the depot/sub-depot followed by a written report in the register on the next day. The</p>	<p>telephone/mobile to the depot/sub-depot followed by <i>updating the defects in TDMS mobile foot patrolling app on the next day.</i> The supervisor in charge of the depot/sub-depot will carefully scrutinize the <i>TDMS foot patrolling report in his section available in TDMS portal</i> and take prompt action to rectify defects reported, making suitable entries in the <i>in TDMS itself.</i></p> <p>6. Testing of Emergency Telephone Sockets: During patrol duty, the Technician will speak to TPC from every emergency telephone socket in route. Such calls from patrolling Technicians should be recorded in a Register by the TPC indicating the date, time and serial number/location of the socket tested. Defective sockets should be reported promptly to the S&amp;T Department for rectification.</p> <p>A proforma for Linemen's Foot Patrol Report is given at Annexure 3.0</p> <p><b>20322 b. Drone-Patrolling of OHE</b></p> <p>1. <i>The objective of Drone-Patrolling is to supplement foot patrolling by carrying out detailed visual and thermal inspection of OHE (including feeder lines, AEC and allied installations) using Drone service, so that defects and abnormalities, particularly at inaccessible or non-approachable locations, are identified at an incipient stage and recorded in TDMS for timely corrective action.</i></p> <p>2. <i>Drone patrolling shall be in addition to the foot patrolling and shall act as a technological upgradation to enhance inspection quality and coverage. Drone-based inspection shall be conducted as per the periodicity set by PCEEs of the ZRs based on local conditions, traffic density, and vulnerability of section for covering the jurisdiction of a TRD depot.</i></p> <p>3. <i>Drone patrolling shall be carried out in accordance with RDSO Guidelines TI/IN/0060 or latest for Non AI based drone Inspection and DGCA regulations.</i></p> <p>4. <i>Further the data so recorded by drone in image and video format as per guidelines,</i></p>
--	---	---

	<p>supervisor in charge of the depot/sub-depot will carefully scrutinize the Register and take prompt action to rectify defects reported, making suitable entries in the Register.</p> <p>7. Testing of Emergency Telephone Sockets: During patrol duty, the Technician will speak to TPC from every emergency telephone socket in route. Such calls from patrolling Technicians should be recorded in a Register by the TPC indicating the date, time and serial number/location of the socket tested. Defective sockets should be reported promptly to the S&amp;T Department for rectification.</p> <p>A proforma for Linemen's Foot Patrol Report is given at Annexure 3.03</p>	<p><i>may also be used further for processing data using AI software built for the defects covered under RDSO Guideline TI/IN/0056 or latest, for AI based drone Inspection.</i></p> <p>5. Reporting and Data Management</p> <p>a) All video and image data shall be processed and annotated as per RDSO Guidelines for drone based patrolling.</p> <p>b) Defect reports shall be generated indicating: Location (Chainage/Mast No.) and time of data capturing</p> <p>. Nature of defect,</p> <p>. Severity rating,</p> <p>. Recommended action.</p> <p>c) Defect reports generated shall be integrated with TDMS as per RDSO guidelines for further necessary maintenance action.</p> <p>d) Confidentiality of Railway data shall be ensured through NDA (Non-Disclosure agreement) signed with the Drone service provider.</p> <p>6. Action on Defects</p> <p>a) Major defects endangering safety shall be immediately reported to TPC and concerned TrD officials for regulating train movement, if required.</p> <p>b) Defects shall be entered in TDMS and attended by Maintenance gangs within prescribed time based on the severity.</p> <p>c) Compliance shall be recorded in TDMS.</p> <p>7. Responsibility</p> <p>a) Zonal Railway shall be the executing agency for implementation of drone based inspection of OHE as per the latest RDSO Guidelines.</p> <p>b) Sr DEE/TRD shall assign suitable staff not less the rank of a SSE/JE to cross verify and scrutinize drone reports as submitted by Drone service provider.</p> <p>c) SSE/JE of the concerned TRD depot shall cross-verify critical defects during field inspection. A proforma for Drone Patrol Report is given at Annexure 3.03</p>
--	---	--

**SCHEDULE OF MONTHLY INSPECTIONS**

S N	Nature of Inspection	SR.DEE	DEE	ADEE	SSE-In charge	SSE(Sectional)	JE*
1.	Locomotive Cab	1	1	2	2	2	2
2.	OHE Inspection Car	1	2	3	4	4	6
3.	Foot patrolling	0	0	0	Entire section in year	Entire section in month	Entire section in 3 month
4.	OHE Depot	1	2	4	4	-	-
5.	Station	1	1	2	4	4	4
6.	Night Inspection	-	1	1	2	2	2
7.	Office Inspection	1	1	1	1	-	-
8.	Drone Patrolling	<i>Periodicity as decided by ZRs as per local conditions and vulnerability of the sections.</i>					

*Notes:'*

- i.
  - i. These Inspections are the minimum quantum per month.
  - ii. In respect of Supervisory Staff, the inspections pertain to their respective jurisdiction.
  - iii. Brief checklists of items to be broadly covered are indicated at Annexure 3.02. Detailed maintenance schedules prescribed should also be kept in view.
  - iv. Quota of Inspections by HQ officers may be laid down by PCEE

### Annexure 3.03

(Para 20321)

FOOT PATROL/*DRONE*

DIARY

DEPOT.....

JURISDICTION.....

Name.

.....

	Items of observations <i>during patrolling</i>	Observations	
		Section	Section
		Date	Date
FOUNDATION	1. DAMAGED OR CRACKED. 2. SINKING OR TILTED. 3. WATER COLLECTION AROUND FOUNDATION. 4. SIDE EARTH FILLING REQUIRED. 5. TOP OF FOUNDATION NOT CLEAR.		
OHE MASTS AND PORTALS	1. MAST DEFLECTED TOWARDS TRACK 2. MAST DEFLECTED AWAY FROM TRACK. OTHER THAN THOSE ALREADY UNDER OBSERVATION & THUS PAINTED WITH YELLOW BAND 3. HIT MARK OR DAMAGE TO MAST 4. NUMBER PLATE MISSING 5. NUMBER PLATE DAMAGED 6. HRL/IMP NOT PAINTED 7. <i>RUSTING ON OHE STRUCTURES</i> 8. <i>CUT MAST/PORTALS LYING NEAR TO THE RAILWAY TRACK</i>		
ANCHOR	1. NUT CHECK NUT OR LOCK PLATE PIN MISSING FROM ANCHOR BOLT  2. DO-GUY ROD 3. ANCHOR BOLT RUSTING		
BRACKET ASSEMBLY	1. BRACKET INSULATOR DAMAGED/ <i>CHIPPED/ FLASHED</i> 2. STAY INSULATOR DAMAGED/ <i>CHIPPED/ FLASHED</i> 3. 9-TONNE ANCHOR INSULATOR DAMAGED/ <i>CHIPPED/ FLASHED</i> 4. <i>BENT /HANGING STEADY ARM/ BRACKET/ STAY TUBE</i> 5. <i>RUSTING OF CANTILEVER PARTS</i> 6. <i>MISSING SPLIT PINS</i> 7. <i>DIP OF CONTACT WIRE/ STEADY ARM PROJECTION (OUT OF RANGE)</i>		



	8. <i>DIRTY INSULATORS</i> 9. <i>DIS-PLUMBED CANTILEVER</i> 10. <i>CATENARY SUSPENSION CLAMP FOR ANY CATENARY STRAND CUT/ DAMAGE</i> 11. <i>ANY OTHER DEFECT NOTICED</i>		
SECTION INSULATOR/ <i>SHORT NEUTRAL SECTION</i>	1. <i>ABNORMAL WEAR ON RUNNERS</i> 2. <i>CORE INSULATOR VERY DIRTY</i> 3. <i>CORE INSULATOR HAVING FLASH MARKS/ DAMAGED</i> 4. <i>MISALIGNMENT AND DROPPER CONDITION</i> 5. <i>DAMAGED /DIRTY CORE INSULATOR OF SECTION INSULATOR</i>		
REGULATING EQUIPMENT	1. <i>Y DISTANCE IS ABNORMAL</i> 2. <i>MOVEMENT OF B.W. NOT FREE.</i> 3. <i>SS ROPE OVERRIDING ON THE DRUM GROOVES</i> 4. <i>SS ROPE STRANDS FOUND CUT AND BIRD CAGING</i> 5. <i>WHETHER EQUALIZING PLATE IS TILTED.</i> 6. <i>BENT/ DEFORMATION/ MISSING GUIDE TUBE/ DEFORMATION OF EYE OF BASE COUNTER WEIGHT</i> 7. <i>RUSTING OF COMPONENTS</i> 8. <i>MISSING COUNTERWEIGHTS, POSITION OF COUNTERWEIGHTS WITH RESPECT TO UPPER AND LOWER LIMITS OF MOVEMENT MARKED ON THE MAST</i> 9. <i>RUBBING OF SS WIRE ROPE ON PULLEY</i> 10. <i>ABNORMAL X AND Y PARAMETERS OF ATD</i>		
AUX TRANS FOR CLS SUPPLY	1. <i>DROP OUT FUSE FOUND FALLEN.</i> 2. <i>SOUNDNESS OF EARTH CONNECTION.</i> 3. <i>CORE INSULATOR FLASH MARK/ DAMAGE</i> 4. <i>ARCING HORN CONDITION (MISALIGNED)</i> 5. <i>EARTH CONNECTION CONDITION</i> 6. <i>OIL LEAKAGE, IF ANY FROM AT</i> 7. <i>BREATHER CONDITION</i>		
OHE SPAN	1. <i>SPAN DROPPERS ABNORMAL LY OUT OF PLUMB.</i> 2. <i>SPAN DROPPERS DAMAGED.</i> 3. <i>ANY ABNORMALITY IN RESPECT OF JUMPERS.</i> 4. <i>DAMAGE TO CATENARY STRANDS.</i>		

	5. EXCESSIVE SAGGING OR HOGGING OF CONTACT WIRE. 6. <i>CATENARY/ FEEDER STRAND DAMAGED</i> 7. <u>EXCESSIVE SAGGING/HOGGING OF CONTACT WIRE</u> 8. <i>DAMAGED /CHIPPED INSULATOR</i> 9. <i>ONE CONDUCTORS RUBBING AGAINST ANOTHER</i>		
ISOLATOR	1. ISOLATOR NO. PLATE MISSING. 2. ISOLATOR LOCK MISSING/DAMAGED. 3. ANY SIGNS OF SPARKING/OVERHEATING. 4. <i>POST INSULATOR DAMAGED/ FLASHED / SPARKING MARKS</i> 5. <i>DAMAGE STRANDS OF JUMPERS</i> 6. <i>EXCESSIVE SAGGING OF JUMPERS</i>		
RC & BT	1. SUSPENSION INSULATOR DAMAGED. 2. SOUNDNESS OF CONNECTION OF RC WITH RAILS. 3. ANY OTHER DEFECTS NOTICED AT BOOSTER TRANSFORMER STATION		
<i>OHE BONDING AND EARTHING</i>	1. <i>RUSTING/ MISSING STRUCTURE BONDS, IMPEDANCE BONDS, CROSS BONDS</i> 2. <i>EARTHING CONDITION AT SP/SSP/AT/STATIONS</i>		
<i>THERMAL SCANNING</i>	1. <i>THERMAL SCANNING OF ALL OHE COMPONENTS</i> 2. <i>TEMPERATURE RISE OF OHE COMPONENTS THROUGH THERMO VISION CAMERA</i>		
<i>NON-CRITICAL DEFECTS</i>	1. <i>NUMBER PLATES MISSING/DAMAGED</i> 2. <i>VEGETATION NEAR MAST/PORTAL</i> 3. <i>CONDITION OF SIGMA BOARDS/ CAUTION BOARDS</i>		
<i>FEEDER / AERIAL EARTH CONDUCTOR (AEC)</i>	1. <i>STRANDS DAMAGED</i> 2. <i>DISCONTINUITY IN WIRE</i> 3. <i>EXCESSIVE SAG IN WIRE</i> 4. <i>ANY HANGING PART</i> 5. <i>ABNORMAL CLEARANCE NEAR STRUCTURE</i>		
<i>JUMPERS &amp; DROPPERS</i>	1. <i>OPEN/DAMAGED DROPPERS/ JUMPERS</i>  2. <i>CONDITION OF PG CLAMPS, INADEQUATE PROVISION OF PG</i>		

	<p><i>CLAMPS</i></p> <p>3. <i>HANGING/LOOSE/OPEN/DAMAGED DROPPERS OR JUMPER WIRE</i></p>		
<i>FOREIGN MATERIAL</i>	<p>1. <i>TREE BRANCHES NEAR OHE</i></p> <p>2. <i>BIRDS NEST/STRAY WIRES ON OHE STRUCTURE</i></p> <p>3. <i>TARPAULIN/KITE THREADS/HANGING CLOTH/FOREIGN OBJECT HANGING</i></p> <p>4. <i>MISALIGNED/PROTRUDED PLATFORM SHED NEAR OHE</i></p>		
<i>GENERAL CHECKING</i>	<p>1. DANGER AND CAUTION BOARDS.</p> <p>2. HT. GAUGES AT LEVEL X-ING.</p> <p>3. EMERGENCY SOCKETS FOUND DAMAGED/OUT OF ORDER.</p> <p>4. EARTHING OF OLS/PLATFORM SHEDS ETC.</p> <p>5. BONDS FOUND DISCONNECTED/MISSING.</p> <p>6. PROTECTIVE SCREENS ON FOB/ROB.</p> <p>7. THREE BRANCHES NEAR OHE.</p> <p>8. BIRD NESTS AND PIECES OF STRAY WIRE.</p> <p>9. DEFECT IN TRANSFORMER SECONDARY NEUTRAL CONNECTION TO RAIL AT FP.</p> <p>10. SIGNS OF HEAVY SPARKING WHEN LOCO PASSES.</p> <p>11. STATION ON ROUTE.</p> <p>12. MINOR DEFECTS RECTIFIED IF ANY DURING PATROLLING</p> <p>13. MAJOR DEFECTS NOTICED.</p>		
<i>POWER LINE CROSSINGS</i>	<p>1. <i>CONDITION OF THE CONDUCTOR INCLUDING THE EARTH CONDUCTORS CROSSING THE RAILWAY TRACK</i></p> <p>2. <i>CONDITION OF THE INSULATORS OF TOWERS ADJACENT TO RAILWAY TRACK</i></p> <p>3. <i>CONDITION OF THE TOWERS ADJACENT TO RAILWAY TRACKS</i></p> <p>4. <i>ANY OTHER DEFECTS IN THE TRANSMISSION LINE CROSSING</i></p>		
<i>DEFECTS IN TRANSMISSION LINE (RAILWAY OWNED)</i>	<p>1. <i>CONDITION OF THE INSULATORS</i></p> <p>2. <i>CONDITION OF THE TOWER</i></p> <p>3. <i>CONDITION OF THE CONDUCTOR</i></p>		

	<p><i>INCLUDING THE EARTH WIRE</i></p> <p><i>4. CONDITION OF THE OVERLINE CROSSING THE RAILWAY TRACK</i></p> <p><i>5. CONDITION OF THE TRANSMISSION LINE FITTING</i></p> <p><i>6. VEGETATION NEAR THE TRANSMISSION LINE TOWER AND CONDUCTOR, WHICH IS INFRINGING WITH THE TRANSMISSION LINE</i></p> <p><i>7. CONDITION OF THE EARTHING OF TOWER</i></p> <p><i>8. ANY OTHER DEFECTS IN THE TRANSMISSION LINE</i></p>		
<i>CRITICAL AREAS OF PARTICULAR INTEREST (CAPI)</i>	<i>CAPI ARE THE SPECIFIC AREAS BASED ON THE HISTORICAL INSPECTION RECORDS, FAILURE REPORTS, REPAIR AND REHABILITATION RECORDS AND NEED SPECIAL ATTENTION WHILE INSPECTION.</i>		

**(Akash Sharma)**  
**Director (TrD)**

**Phone: 011-47845421**

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

2021/EEM/148/3/ACTM-Part.(3)

New Delhi, Dated: 21.05.2026

The General Manager

All Indian Railways including Metro Railway/Kolkata, CORE/Prayagraj, ICF/Chennai, CLW/Chittaranjan, RCF/Kapurthala, MCF/Raebareli, DLW/Varanasi, RWF/Bangalore

The Chief Administrative Officers,  
DMW/Patiala, RWP/Bela

Director General,  
RDSO/ Lucknow and NAIR, Vadodara.

Chief Commissioner of Railway Safety, Lucknow.  
CRS/ Northern Circle/ Central Circle/ Eastern Circle/ Southern Circle/ South Central Circle/ South Eastern Circle/ Western Circle.

Commissioner of Metro Railway Safety/Delhi

Director General/Director,  
IRIEN, Nasik and Indian Railway Centre for Advance Maintenance Technology, Gwalior

Chairman & Managing Director,  
RVNL, DFCCIL, MRVC, IRCON, RITES, PGCIL, New Delhi.

**Sub: Advance Correction Slip No. 17 to Railway Manual of AC traction (ACTM) Vol. II Part I Para 20321 for incorporation of provisions regarding Live Line OHE Measuring Gauge (LLOMG) in AC Traction Manual.**

Please find enclosed herewith the Advance Correction slip No. 17 (Modification/Revisions) in Para of Railways Manual of AC Traction ACTM Vol. II Part I Para 20321 for incorporation of provisions regarding Live Line OHE Measuring Gauge (LLOMG) in AC Traction Manual for your information and necessary action.

  
21/05/2026

(Akash Sharma)

Director TrD

Phone: 011-47845421

Copy to : PPS to M/TRS, PPS to M/Infra, PPS to AM/RE, PPS to AM/Traction, PPS to AM/CE, PPS to AM/Signal, PED/Safety, PED/Vig, PED/GS, ED/GS(Elect), PEDEE(RS), PEDEE(Dev.), EDEE/G, EDCE(G), DEE(RS), DEE(G), Director(Safety), PCEE/All Zonal Railways & PUs, CAO/CORE/ALD, PED/Tr/RDSO, RB(Library).

**ACTM Correction Slip No. 18 dtd. 05.2026**

ACTM Para No.	Existing Para	Modified Para
ACTM Vol-II Part I Para 20321	<p>1. The OHE is subject to dynamic oscillations due to the constant contact and movement of the fast moving pantograph coupled with wind pressure. It is necessary to maintain the OHE in perfect condition through proper checks on its geometry and all parameters adopted in the design.</p> <p>The following schedules of maintenance for the OHE are required to be followed to ensure good current collection improve OHE reliability as well as safety of installations and staff.</p> <ol style="list-style-type: none"> <li>Thermo Vision Camera checks</li> <li>Current collection Tests</li> <li>Special checks</li> <li>Annual Maintenance and OHE Inspection Car Checks.</li> <li>Periodical Overhaul</li> <li>Re-tensioning of Unregulated OHE</li> <li>Live line inspection of OHE by 8W OHE inspection car (Once in 06 months for normal routes and quarterly for suburban routes; As per Rly Bd L. No. 2020/EEM/161/1Vol-2Dt. 21.09.2020).</li> </ol> <p>2. The importance of OHE arises from the fact that it is extensive, with a very large number of insulators, fittings and other parts; failure of any one of which may result in dislocation of train services for appreciable periods until the defect/breakdown is rectified. The adjustment work is particularly important at cross overs and at overlaps spans since any departures from the standards laid down could cause entanglement of the pantograph with the OHE, with serious repercussions. The need for a thorough detailed inspection of every</p>	<p>1. The OHE is subject to dynamic oscillations due to the constant contact and movement of the fast moving pantograph coupled with wind pressure. It is necessary to maintain the OHE in perfect condition through proper checks on its geometry and all parameters adopted in the design.</p> <p>The following schedules of maintenance for the OHE are required to be followed to ensure good current collection as well as safety of installations and <i>personnel</i>.</p> <ol style="list-style-type: none"> <li>Drone and foot patrolling</li> <li>Thermo Vision Camera checks</li> <li>Current collection Tests <i>using Oliver-G</i></li> <li>Special checks</li> <li>Annual Maintenance and OHE Inspection Car Checks.</li> <li>Periodical Overhaul</li> <li>Re-tensioning of Unregulated OHE.</li> <li><i>Measurement of OHE parameters using Live Line OHE Measuring Gauge (LLOMG) as per latest RDSO guideline.</i></li> <li>Live line inspection of OHE by 8W OHE inspection car(Once in 06 months for normal routes and quarterly for suburban routes; As per Rly Bd L. No. 2020/EEM/161/1Vol-2 Dt. 21.09.2020).</li> <li><i>Measurement of OHE parameters using MRI in tower wagon and NETRA car as and when available.</i></li> </ol> <p>2. The importance of OHE arises from the fact that it is extensive, with a very large number of insulators, fittings and other parts; failure of any one of which may result in dislocation of train services for appreciable periods until the defect/breakdown is rectified. The adjustment work is particularly important at cross overs and at overlaps spans since any departures from the standards laid down could cause entanglement of the pantograph with the OHE, with serious repercussions. The need for a thorough detailed inspection of every part of the installation, must by mast need not therefore be over-stressed.</p>

	<p>part of the installation, mast by mast need not therefore be over-stressed.</p> <p>3. The periodicity of schedules laid down below apply to the majority of installations. The periodicity may however, be modified by PCEE, where local condition so warrants.</p> <p>4. As regards new equipments, if schedules, have not been drawn up, tentative schedules may be evolved based on the Original Equipment Manufacturer's guidelines and RDSO's recommendations, keeping in the view the local conditions also and followed with the approval of PCEE.</p>	<p>3. The periodicity of schedules laid down below applies to the majority of installations. The periodicity may however, be modified by PCEE, where local condition so warrants.</p> <p>4. As regards new equipments, if schedules, have not been drawn up, tentative schedules may be evolved based on the Original Equipment Manufacturer's guidelines and RDSO's recommendation, keeping in the view the local conditions also and followed with the approval of PCEE.</p> <p>5. <i>Measurement of OHE parameters should preferably be done in live line condition either through LLOMG, NETRA Car or MRI system provided over Tower Wagon to optimize utilization of available power and traffic blocks for maintenance.</i></p> <p>6. <i>The data collected during various checks and inspections manually or using advance inspection &amp; measurement tools shall be uploaded in TDMS and the compliance of the defects noticed shall also be updated in TDMS.</i></p>
--	--	---

(Akash Sharma)

Director TrD

Phone: 011-47845421