

NORTH WESTERN RAILWAY

No. NWR/HQ/Safety/SD/14/24

Headquarter Office
Jaipur
Date: 23.07.2024

Safety Drive No. 14/2024

PCE, CAO/C, PCME, PCEE, PCSTE & PCOM-NWR &

DRMs- AII, BKN, JP, JU.

Sub: Month-Long Safety Drive.

In reference to subject mentioned above, a month-long safety drive is to be launched with immediate effect i.e. from 23.07.2024 to 22.08.2024 by involving HAG/NFHAG/SAG/SG/JAG officers from HQ and divisions/workshops of Electrical, Mechanical, S&T, Operating, Engineering and Safety departments. During the safety drive, **officials of concerned departments should conduct audit & pay special emphasis on the following aspects: -**

Mechanical	<p>Fire safety-preparedness & mitigation in coaches: -</p> <ul style="list-style-type: none">• Proper locking of all stabled rakes/ coaches in yards, station & maintenance lines (after completion of maintenance work.• Provision & working of Fire/ smoke detection system in AC coaches along with provision. of Fire extinguishers @ 2 per coach.• Provision and working of Fire/ smoke detection & Suppression system in Pantry car & power car coaches along with provision of Fire extinguishers @ 4 per coach.• Provision of Fire extinguishers @ 2 per coach in non-AC coaches.• Clearance of garbage from all nooks/corners/ cervices of coach interior. Especially from ventilator fan grill area in toilets.• Proper sealing of cervices in electrical junction box covers.• Proper sealing of floor/LP sheet panel holes in Electrical panel areas.• Working of emergency lights in coaches.• Firefighting training of onboard contractual staff. <p>Brake system maintenance in coaches & wagons: -</p> <ul style="list-style-type: none">• No broken/damaged brake blocks/pads.• Proper securing of brake rigging levers & pins by split cotter/pin.• No unattended fault leading to display of fault code in LHB brake control panel.• Working of brake indicators in LHB coaches.• Working of hand brakes in Guard van coaches.• Proper coupling of Brake Pipe/Feed Pipe palm ends & securing by GI wire in coaches• Availability & working of Quick coupler arrangement for fitting Brake pressure gauge in• Brake van in freight trains. <p>Suspension system maintenance in coaches & wagons: -</p> <ul style="list-style-type: none">• No broken/cracked spring• Working of Failure Indication cum brake application (FIBA) device in coaches fitted with air spring suspension.• No leaky dampers/shock absorbers. <p>Rolling gear maintenance in coaches & wagons: -</p> <ul style="list-style-type: none">• No wheel profile defects as per tyre defect gauge (Flat tyre, Hollow tyre, Sharp flange, thin flange etc.)• No thermal cracks, shelling, discoloration on wheel tread.• No signs of grease oozing out from axle box.• Intact speed sensors in LHB wheels.
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	<p>Coupler & buffer maintenance in coaches & wagons: -</p> <ul style="list-style-type: none"> • No visible cracks in coupler & buffer parts • Coupling (counter) weight in ICF screw couplings shall not be left hanging. It should be firmly secured by GI wire so that it does not hit coupled BP/FP palm ends during run. • Buffer height difference shall be within permissible limits. <p>Fastening of under slung items in coaches & wagons: -</p> <ul style="list-style-type: none"> • All under-frame slung items (Water tank & battery box in coaches, brake cylinders, brake beams etc.) shall have intact brackets & its securing arrangements like nut bolts, welding etc. Additional safety straps/ wire ropes, wherever provided, shall be in sound condition <p>The rolling stock shall not be overdue for any schedule.</p> <p>Disaster Management facilities: Inspection of disaster management facilities like ART, SPART & ARME-I for availability of equipment as per standard list & their work readiness.</p>
S&T	<p>SM's/Control Panel/VDU Room: -</p> <ul style="list-style-type: none"> • Alertness, assurance, competency and knowledge of SM of various operations on VDU/ • Panel, action to be taken during fire, power supply failure etc. • Checking of registers of Relay room opening, Disconnection/Reconnection, Counters, Crank handle testing etc. • All Joint inspection registers of Point and crossing periodicity and compliance of deficiencies with Engg. dept. • Testing of Signaling Equipment's as per Para 21.6.1 of IRSEM • Signal Failure Register whether all entered failures are closed out with proper remarks. Signatures of in-charge and remarks. Cross checking with other relevant records like relay room, Disconnection/Reconnection register/memo etc. • Adequacy of disconnection duration and its utilization. vi) System Integrity Test of PI/EI/RR1 as per IRSEM Para 19.8.8 • Working of VHF sets, Control Phones, Hot lines, Auto Telephones etc. • Working of other Telecom gears like PA system, Wi-Fi system, Coach guidance system, Train Information board, Digital Clocks etc. <p>Relay Room, S&T Equipment and Records: -</p> <ul style="list-style-type: none"> • Availability of approved drawings and up-to-date documents as per Annexure 21-A2 of IRSEM, including Outdoor Drawing set. • Matching of Checksum/CRC of EI as per last commissioning. • Pre-commissioning checklist & OEM certificates of all Signaling sub-systems • Proper working of data logger and its reports. <p>Inspect Relay room with emphasis on: -</p> <ul style="list-style-type: none"> • Generation of proper SMS on opening and closing of relay room, • Updated termination details on CTR, • Latest completion drawings are available and are in readable condition, • Proper lightning is available. AC and fans are in working condition by station emergency supply also. • Availability of proper fuses/spares. • All Relays are properly locked in base and properly sealed. • No Relays are overdue for replacement as per codal life. • Earthing arrangement (Perimetric for EI) with proper soldered earth wires and measurement of Earth Resistances • Alarms if any on EL, UFSBI, Datalogger etc. • Functioning of Fire alarm system. • All entry/exit of cables are sealed. • IPS modules working, AT/commercial supply, auto changeover switch working.

	<p>Outdoor Signaling functions: -</p> <ul style="list-style-type: none"> Inspect that all maintenance schedules and safety checks of various gears are being carried out as per prescribed procedure of IRSEM/Zonal guidelines. Inspection of outdoor gears like points, track circuits, axle counters, signals and check their parameters, safety checks such as obstruction test, TSR etc. <p>Inspection of Huts of automatic signaling and IBH in the block sections and approach roads upto Huts.</p>
Operating	<p>General points: -</p> <ul style="list-style-type: none"> Knowledge of staff. Counselling of staff special emphasis regarding working in Automatic signaling territory. Refresher courses and PME. Cross-verification of important contacts (Disaster management board, machinery's (outside road cranes/pock lain/ICB etc.) contact numbers etc. at ART/ARMes and stations). <p>Securing of Rolling stock: -</p> <p>Rakes in pit line shall be secured by hand brakes, wooden wedges, scotch blocks & safety chains before detaching loco. Coaches in sick line/ yard shall be secured using wooden wedges. All lines in maintenance area shall be so protected that shunting loco cannot be attached unless the protection equipment is removed by maintenance staff. All securing shall be removed only after attachment of loco on rakes/coaches.</p> <p>Station Working Rule must be verified for their updating/physical layout and their implementation. Assurance of staff for SWR. Special restrictions at stations to be observed. Proper counselling of station staff must be carried out during the inspection.</p> <p>Shunting practices to be audited, to find out any unsafe procedure being carried out.</p> <p>Availability of Fire Extinguishers in prescribed numbers at the station.</p> <p>Review of Subsidiary Rules provisions that have safety repercussions.</p> <p>Observance of Rules during abnormal working.</p> <ul style="list-style-type: none"> Proper filling of paper line clear ticket/form and authority to pass signal at danger. Proper message has been exchanged between Station Master and Loco Pilot/Guard. Proper filling of forms to operate the train during abnormal condition. <p>Inspection of Guard Van Required Safety Equipment's for their availability and proper condition.</p> <p>Proper maintenance of the various registers/records should be checked from the safety point of view:</p> <p>Ensuring of reversal of points-Points should be set against the occupied line immediately after complete arrival of train (G&SR 3.38)</p> <p>Inspections by SSs and Tis and their compliance.</p>
Engineering.	<p>Rail, Weld & SEJ Fracture: -</p> <ul style="list-style-type: none"> Quality of Welding, training and competency of Welders, adequacy of blocks for welding. Destressing of LWRS Chamfering of holes. Location of Weld in between sleepers Proper Jogging of defective welds Liner Biting of rails. <p>Safety precautions at work-sites/machine working</p> <ul style="list-style-type: none"> Protection at Worksites & staff. Fencing at Worksites (Competency and Training of Contractor staff Adequate Supervision by Railway staff at Worksites

	<p>USFD Testing: -</p> <ul style="list-style-type: none"> • Quality of inspection. • Calibration of machines. • Training of USFD testing supervisor (iv) Availability of B-scan machines. <p>CRO of Stray Animals: -</p> <ul style="list-style-type: none"> • Identification of trespassing and other vulnerable locations and its fencing <p>Point and Crossings Inspection and Maintenance: -</p> <ul style="list-style-type: none"> • Regular inspection of points and crossings (including joint inspection with S&T & Operating department) and their compliance. • Defective length of Cross Overs • Versine of Turn in Curve • Wear & tear of tongue rails/CMS crossings, burring of stock rails, • Complete tamping of P&Cs by Track Machines. <p>Level crossings: -</p> <ul style="list-style-type: none"> • Working and knowledge of Gate keepers • Infrastructure at LC i.e. Gate boom, speed breakers, road surface, height gauges and road signage etc. • Tress Passing in closed condition of gate • Regular Overhauling of LCS. <p>Inspections of bridges: -</p> <ul style="list-style-type: none"> • Inspection of track on Bridge & Bridge Approaches • Substructure and Superstructure of Bridges including technical inspection. • (USFD in Bridge Approaches and Removal of IMR joints. • Water logging in LHSs • Approach Settlement of New LHS • Overall conditions of bridges <p>Track: -</p> <ul style="list-style-type: none"> • Seasonal (summer, winter & monsoon) precautions and patrolling. • Overdue schedule of inspections of track. • Presence of gang at site. <p>Misc Items: -</p> <ul style="list-style-type: none"> • Condition of pathways at stations. • Condition of FOBs and condition of structures near track, water tanks and shed of stations. • Quality of civil works. • Adequacy of Blocks and their utilization. • Condition of dead-ends/sand humps. • Trespassing in stations limits.
Electrical	<p>TRD: -</p> <ul style="list-style-type: none"> • Drive for section insulators such as Badly chipped or slightly cracked, dust and dirt accumulated on insulators, Flash-marks on runners etc. • Drive for OHE structure such as Check rail level, Tilting of masts, condition of embankments with respect to stability of masts and condition of location number plate etc. • Drive for isolator's assembly such as for signs of sparking or overheating of isolators, condition of locks/interlocks, alignment of contacts and arcing horns etc. • Drive for neutral section and overlap, such as state of cleanliness of insulators, condition of arcing horns and arc traps and Pantograph hit marks etc. • Drive for inspections of tools in OHE/PSI depot such as Damaged strand of cable, Defective clamps, damaged strands of steel rope etc. • Drive for Bonding such as Open or loose bond, Bond missing, etc. • Joint inspection of Traction bonds by S&T and TRD supervisors.

	<ul style="list-style-type: none"> • Requirement of Tree trimming. • Overdue Annual Scheduled maintenance of OHE & PSI equipment. <p>General Services: -</p> <ul style="list-style-type: none"> • Earthing not tested periodically. • Defective Light fittings at important locations like pit line, sick line, washing line, LC gates, rolling in/out examination light etc. • Doors/covers of panels/junction box are not closed properly and loose connection of cables/wires in electrical panels. • Use of Higher rating MCB/MCCB/Fuses and HRC fuses replaced by wired fuse. • Connection of earth not provided/found open inn electrical equipment like desert cooler, water cooler, refrigerator, geyser etc. • Bypassing of Earth Leakage Circuit Breaker (ELCB). • Old wiring/Loose/unsafe wiring. <p>Crew: -</p> <ul style="list-style-type: none"> • Availability of safety equipment in locomotive. • Drive for brake feel test, RS valve handle, repeating of signal proper and adequate rest at HQ and outstation. • Speed monitoring device chart analysis. Counsel running staff regarding working of trains during poor visibility condition like foggy weather etc. • Crew Competency, Brath Analyzer Machine in working order or not and CMS integration with BA, Spare BA availability and crew road learning and training. • Counselling of crew special emphasis regarding working in Automatic signaling territory. <p>Traction: -</p> <ul style="list-style-type: none"> • Summer drive, which includes temperature checking of axle box, MSU and TM bearing through Infrared temperature gun on arrival of locomotive at destination station/out pit checking for any oil leakage from transformer, Tap Charger (GR), MPH circuit, traction converter, oil pump etc. • Drive for winter such as Re-greasing of pantograph servomotor to avoid jamming, working of heaters/blowers in both cabs, Air tightness of cab main doors, window shutter and sealing of ventilator cover and Proper level of oil to be maintained in TFP, Grand Traction Converter etc. Silica gel for Transformer, tap changer and Traction Converter must be in good condition. Air dryer must be in working order and isolation should not be permitted. • Drive for cable protection such as to ensure proper cable laying in junction box with gland and vinyl housing, no loose hanging cable etc. • Drive for fire -prevention such as DGA testing of transformer oil, working of QLM, Q44 protective relays. Ascertain the sealing and functioning of VCD in every locomotive.
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During the drive officers of Electrical, Mechanical, S&T, Operating, Engineering, and Safety departments of open line, construction and HQ should inspect the various installations / assets. Officers of HQ shall also be involved.

Effective follow up action should be taken on all deficiencies and irregularities noticed during the drive. Critical analysis should be done to identify systematic deficiency. Deficiencies of urgent nature should be brought to the notice of concerned officer through concerned divisional control.

Compliance of aforesaid drive may please be updated daily on Google spreadsheet. Link of Google spreadsheet is given below-

<https://docs.google.com/spreadsheets/d/1zAuD1vwXA9XPygfcB-sXXPOneNdc5914ZL7Ry2zdEV8/edit?usp=sharing>

On completion of the drive, the final outcome of the drive along with action taken / planned to be taken with PDC should be furnished to this office by 28.08.24 in following Performa.

(i) No. of checks conducted.....

Date	Designation of inspecting Official	Grade (JAG/SG/SAG /NFHAG/HAG)	Location where check conducted	Deficiencies/irregularities noticed	Action taken	PDC

(ii) Department-wise deficiencies and their updated position.

Deptt.	Head/Asset wise details	No of locations inspected	Nos. of deficiency	Attended so far	Balance	TDC
Electrical (TRD/ Locomotive Crew)						
Mechanical						
S&T						
Operating						
Engineering						

Every department of the Divisions will also send a copy of deficiencies observed and action taken to their concerned HQ, which in turn will send a compiled position to safety department for onward submission to Railway Board.


23/7/24
Pr. Chief Safety Officer

Copy to: -Secretary to GM for kind information of GM
Secretary to AGM for kind information of AGM
Sr. DSOs- AII, BKN, JP, JU- for necessary action and follow up.