

**Eastern Railway.**

TG. 202/Operating Manual/Pt-I

Kolkata: dated 08 .02.2024.

अधिसूचना  
**NOTIFICATION.**

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1<sup>st</sup> Addendum and Corrigendum to the Operating Manual Book of Eastern Railway (2013)

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In view of above, it is stated that 1<sup>st</sup> Addendum and Corrigendum to the Operating Manual Book of Eastern Railway (2013) is approved and signed by Principal Chief Operations Manager/ER on 02/2024, shall be brought into in force over Eastern Railway System with immediate effect.

Softcopy of Operating Manual of this Railway is uploaded in official website of Eastern Railway under URL: [https://er.indianrailways.gov.in/view\\_section.jsp?lang=0&id=0,1,334,417,1110,2123](https://er.indianrailways.gov.in/view_section.jsp?lang=0&id=0,1,334,417,1110,2123))

It is advised that all concerned authorities of Engg, S&T, Electrical, Operating, Commercial etc should carefully note and act accordingly.

SD /-

(Rajendra Kumar)  
Chief Operations Manager (G)

# 1<sup>st</sup> Addendum and Corrigendum to the Operating Manual Book of Eastern Railway (2013).

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A. The following modified Chapter Index should be incorporated before existing index of Operating Manual of Eastern Railway.

Chapters	Contents
1.	Working of Stations
2.	Working of Trains
3.	Marshalling <ul style="list-style-type: none"> <li>• Attachment of dead Locomotives</li> </ul>
4.	Freight Operation
5.	Preferential Schedule <ul style="list-style-type: none"> <li>• Rationalization Order</li> </ul>
6.	Movement of ODC and Other Bulky Consignment
7.	Control Organization <ul style="list-style-type: none"> <li>• Duties of control staff</li> <li>• Operating Discipline</li> <li>• Co-ordination between Control and Stations</li> </ul>
8.	Command, Control & Coordination of Emergency Rescue Operations on the open line <ul style="list-style-type: none"> <li>• Duties of Commercial Staff in case of Accident.</li> </ul>
9.	Marshalling Yards and Freight Terminals <ul style="list-style-type: none"> <li>• Objective of marshaling Yards</li> <li>• Kinds of Yards</li> <li>• Some terms concerning Marshalling Yards and its components.</li> <li>• Telecom equipment of Marshalling Yards.</li> <li>• General instructions</li> </ul>
10.	Container Train Operation
11.	Inspections
12.	Interlocking
13.	Station Working Rules and Temporary Working Order
14.	Non-Interlocked Working of Station
15.	Operating Statistics
16.	Derailment Investigations
17.	Concept of Electric Traction; <ul style="list-style-type: none"> <li>• General description of Electric Rolling stock.</li> <li>• Crew Links, Loco Links And Power Plan.</li> </ul> Procedure For Calculating Crew Requirement Of a Division.
18.	Customer Interface and Role of Commercial Staff
19.	FOIS <ul style="list-style-type: none"> <li>• System administration.</li> <li>• Management report.</li> <li>• Operations control.</li> <li>• Miscellaneous.</li> <li>• Exception Tasks.</li> <li>• Interchange.</li> <li>• Integrated Coaching Management Systems- An overview</li> </ul>
20.	Control Office Application (COA)
21.	Anti Collision Device (ACD)
22.	Rolling Block Programme
<b>Appendix</b>	

- B. The following chapters namely chapter-21 and chapter-22 shall be incorporated in Operating Manual of Eastern Railway after Chapter-20 Control Office Application (COA).

#### Chapter 21 - ANTI COLLISION DEVICE (ACD)

Anti Collision Device (ACD) is a fully integrated Electronic Control System designed to minimize collisions and increase safety on Railway system. It is a non signaling system and provides additional cover of safety in train operations to prevent dangerous train collisions caused due to human errors or limitations and equipment failure. Being the non-signaling and inter locking system it does not replace any existing signaling and interlocking system and does not alter any procedures of train operations in vogue.

ACD is a Network of Anti -Collision Devices (ACDs) comprising of a variety of devices such as on-board (Mobile). ACDs for Locomotives and Guard vans and track-side (Stationery) ACDs, Level Crossing ACDs, Loco Shed ACDs, Sensor based ACDs and ACD Repeaters. All these work on the principle of distributed control systems. All ACDs along the ACD route communicate with each other through radio communication when they are within a radial range of at least 3 kms. On board computers use inputs from Global Positioning System (GPS) for determination of train location, speed, course of travel and time. Both mobile and stationary components of ACD system exchange information and take decisions based on train working rules and embedded software to apply brakes automatically without any input from the users. If two ACDs are deemed to be at a risk of collision, the ACD system activates automatic braking operation to prevent collisions. Loco ACD is designed to interface with various types of braking system of locomotives.

System provides audio-visual "Train Approach" warning to road users at level crossings. At Manned LC Gates, when approaching Loco ACD detects "Gate Open" condition, the speed of the train/loco is reduced and kept under a pre-defined speed. Similarly, it can also provide warning and regulate speed in case of movements of land slopes in deep cuttings that are "sensed" through Inclinator grids, embedded in such slopes. ACD system does not interfere with normal working of train operations.

More than 2,000 Anti Collision Devices have already been installed over 2,700 Route Kms of track on Indian Railway system out of which about 1900 Route Kms are on North East Frontier Railway and balance are on Konkan Railway. Further proliferation of this safety device on the balance BG network of Indian Railways is being planned.

## Chapter 22 - Rolling Block Program

**Rolling Block Program:** "Rolling Block Program" means advance planning of traffic blocks/disconnections (civil/electrical/S&T etc. including Non-Interlocked work) over a specified duration up to 52 weeks, required for maintenance and asset repair/replacement/creation works, to be prepared on a rolling basis by adding one week plan every week by reviewing the output of the immediate preceding week and planning for the remaining weeks ahead.

### **Details of the "Rolling Block Program":**

1. The "Rolling Block Program" incorporating the annual maintenance program shall be prepared in advance in the month of March for the next Financial Year.
2. The Rolling Block Program shall be prepared in advance, eventually for 52 weeks with requirement of each week to be submitted in the preceding week in the Division and approved by DRM. It shall be reviewed weekly for output of immediate preceding week and another one-week planning will be added every week.
3. Rolling Block Plan shall fulfill the requirement of traffic/power block for renewals, maintenance, new asset creation work, disconnections, movement of track machines, inspection vehicles and RMC etc. including blocks committed for outsourced track machines. Mega blocks may be planned once in a week or as per the requirements of major infrastructure works or Non- Interlocked works.
4. The Rolling block programs should integrate planning for all type of works e.g. civil, electrical, S&T and projects for creation/modification/rehabilitation of all types of infrastructure assets requiring blocks.
5. Non-Interlocked works should be incorporated in the Rolling Block Program to improve the utilization of blocks in a section.
6. Requirement of block by different stakeholders shall be assessed and dovetailed in a joint manner. With integrated planning, separate block in same section for work of different departments/agencies can be avoided in the planning horizon.
7. Sr.DOM shall indicate a suitable corridor for giving the blocks demanded taking into consideration the integrated maintenance corridor block provided in the working time-table, historical data and operational patterns.
  - 7.1. For maintenance / repair / replacement on emergency crossovers (i.e. UP and DN lines), provision of 1 hour disconnection (including half an hour traffic/power block) on both main lines shall be incorporated in working timetable for station yards.
  - 7.2. For major yards, corridor blocks for each line / cluster of lines shall be identified day wise by Operating department and indicated in WTT so that blocks/ disconnections may be suitably incorporated in the Rolling Block Program.
8. An empowered team of all concerned branch officers shall be nominated on each Division to review and finalize the Rolling Block Plan with repercussions on train operations — mobility, loading and punctuality.

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9. The weekly block planning will be finalized jointly by concerned branch officers and approved by DRM. Grant of blocks & output of block shall be reviewed by DRMs regularly and the review of grant and utilization of blocks in the previous week shall be part of Rolling Block Program.
  - 9.1. Subsequent week's block plan must be ensured by every Saturday so that concerned department can plan manpower and material in advanced, for effective utilization of block from first day of upcoming week i.e. Monday.
10. Requirement of blocks /disconnection shall be calculated based on maintenance schedules incorporated in respective manuals as per the rated output of the manpower / machines. A periodical benchmarking exercise should be done to incorporate best rated outputs of manpower / machines and proliferation of best practices.
11. The record of block demanded, granted, actual duration and output should be updated, as usual, in Control Office Application (COA), Track Management System (TMS), Traction Distribution Management System (TDMS) etc. for log. The planning, execution and internal communication for Rolling Block Program may be done as deemed fit by the division.
12. Rolling Block Program is for planned works. Activities requiring emergency blocks will continue to be governed as per the existing practices/provisions.
13. Appropriate and adequate resources should be mobilized to optimize the productivity during these blocks. Proper planning and resource mobilization should be ensured to complete the planned work within planned block time with required quality.
14. Planning for blocks of mega and Non-Interlocked works necessitating cancellation /rescheduling /diversion of trains, should be made adequately in advance in the Rolling Block Plan.
  - 14.1. Approval of the Competent Authority for blocks for mega and Non-Interlocked works, including the date(s) and time slot(s) of the works, should be taken before the commencement of Advance Reservation Period (ARP) of the affected trains and in no case such approvals, including any modifications in date(s) and time slot(s), shall be granted less than 4 weeks before the scheduled departure of the affected trains.
  - 14.2. Mega and Non-Interlocked works at stations near Zonal boundary should be planned consulting with the adjoining Zonal railway such that the blocks for Mega and Non-Interlocked works at two nearby stations in two different zonal railways be taken up in tandem/shadow to minimize repercussion on coaching and freight trains.
  - 14.3. In case blocks for such Mega Non-Interlocked works involves inter-zonal train repercussions, consultation with concerned zones should be done before sanctioning the block. Further, when such repercussions are expected to be substantial, involving cancellation of inter-zonal Mail/Express trains, Railways Board to be advised to issue orders for cancellation of trains well in advance as per 14.1 above.

15. For increasing the maintenance corridors, intra-zonal trains can be rescheduled with the approval of GM under information to Railway Board.
16. For increasing the maintenance corridors, trains involving only 2 zones can be rescheduled by the zones concerned with mutual consultation & approval of GMs under information to Railway Board. If agreement is not reached between the two zones, matter may be referred to Railway Board.

(Ref: Railway Board's letter no. 2022/TT-1/76/Misc/3(e.o-3415582),  
dated 22.01.2024.)

Sd/-

Kolkata

Dated:- / 02/2024.

(Ram Dhan Meena)

Principal Chief Operations Manager.

TG. 202/Operating Manual/Pt-I

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5. Dy.CPTM/ER, Dy. COM (Goods)/ER, Dy.COM (Coaching)/ER, Dy.COM (Planning)/ER, Dy. CSO (Operating)/ER.
6. DRM/ER- Howrah, Sealdah, Malda, Asansol
7. Principal MDZTI/Bhuli/DHN.
8. Sr. DOM/ER- Howrah, Sealdah, Malda, Asansol.
9. Sr. DSTE/ER- Howrah, Sealdah, Malda, Asansol.
10. Sr.DEN/Cord- Howrah, Sealdah, Malda, Asansol.
11. Sr. DSO /ER- Howrah, Sealdah, Malda, Asansol.
12. Sr. DEE (OP)- Howrah, Sealdah, Asansol & Sr.DEE (TRD)/Malda.
13. Sr. DME (D&P)-SDAH, Sr.DME (Power)-HWH & MLDT, Sr.DME (O&F)-ASN.

Sd/-

Kolkata

Dated:- / 02/2024.

(Ram Dhan Meena)

Principal Chief Operations Manager.