



MCL

ପତ୍ର ନଂ: ଏମ.ସି.ଏଲ/ସମ୍ବଲପୁର/ବି.ଏ.ସି/2018-19/118

ଦିନାଙ୍କ 17/05/2019

To
**The General Manager,
Jagannath/Bharatpur/Lingraj/Kaniha/Hingula/Talcher/
Ib Valley/Lakhanpur/Orient/Basundhara Area.**

Sub:- Regarding implementation of newly approved Standard Operating Procedure (SOP) for Planning, Procurement, Installation, Operation & Maintenance of Rail Weighbridges at MCL.


Dear Sir/s,

In order to have uniform guidelines to be followed across MCL with regard to Planning, Procurement, Installation and Operation & Maintenance of Rail Weighbridges, a revised comprehensive Standard Operating Procedure (SOP) is enclosed herewith for strict implementation by all concerned.

You are requested to go through the SOP and instruct the concerned for ensuring implementation of the same at your area. This SOP supersedes the earlier issued SOPs w.e.f. 17.05.19.

This has the approval of competent authority.

Yours faithfully


17.5.19
General Manager (E&M)/HOD
ch.p

(Circulation with all enclosures)

Copy for kind information to:

1. D(T/OP-P&P), MCL, Sambalpur.
2. D(F), MCL, Sambalpur.
3. GM(Vig), MCL, Sambalpur.
4. TS to CMD, MCL, Sambalpur.
5. TS to D(T/OP), MCL, Sambalpur.

CC for kind implementation:

1. G.M/ HOD (E&T), MCL
2. G.M/ HOD (Civil), MCL
3. G.M/ HOD (M&S), MCL
4. G.M/HOD (Sys), MCL
5. SO(E&M) of all Areas of MCL - For monitoring & compliance of the SOP.
6. O/c

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STANDARD OPERATING PROCEDURE (SOP) FOR RAIL WEIGHBRIDGES UNDER MCL

PLANNING, PROCUREMENT & INSTALLATION

- Nodal Officer (Maintenance), WBs (NO (M)) shall be appointed by Project Officer (PO) for each project preferable E&T engineer.
- Nodal Officer (Operation), WBs shall be Siding in-charge or Dispatch in charge.

1. Planning of Rail weighbridges:

Planning for Rail WBs is to be done either as per Project Report (PR) provision or Scheme or against Survey off.

a) Planning against PR provision :

The Plant & Machinery (P&M) indent will be prepared by Nodal Officer (Maintenance), WBs and be vetted by Project Engineer (E&M), Colliery Manager, Siding In-charge, Project Finance Officer & agreed by Project Officer at Project level. The P&M indent will be further vetted by SO (M&S), SO (E&T), Staff Officer (P&P), Staff Officer (E&M), Staff Officer (F)/AFM & Staff Officer (Mining)/DGM /GM(Op) at area level and agreed by Area GM. Subsequently the indent shall be forwarded to the GM(E&M)/HOD, MCL HQ for further technical vetting and seeking approval the competent authority as per the DOP.

b) Need based Planning: A Scheme with the following details to be prepared:

- i) Production of project.
- ii) Dispatch of project.

The AMR scheme with the P&M indent will be prepared by Nodal Officer (Maintenance), WBs and to be vetted by Project Engineer(E&M), Colliery Manager, Siding In-Charge, Project Finance Officer & agreed by Project officer at Project level. The P&M indent will be further vetted by SO (M&S), SO (E&T), Staff Officer (P&P), Staff Officer (E&M), Staff Officer (F)/AFM & Staff Officer (Mining)/DGM /GM(Op) at area level and agreed by Area GM. Subsequently the indent shall be forwarded to the GM(E&M)/HOD, MCL HQ for further technical vetting and seeking approval of the competent authority as per the DOP.

c) Planning against Survey off:

The P&M indent with approved surveyed off report will be prepared by Nodal Officer (Maintenance), WBs and be vetted by Project Engineer(E&M), Colliery Manager, Siding In-Charge, Project Finance Officer & agreed by Project officer at Project level. The P&M indent will be further vetted by SO (M&S), SO (E&T), Staff Officer (P&P), Staff Officer (E&M), Staff Officer (F)/AFM & Staff Officer (Mining)/DGM /GM(Op) at area level and agreed by Area GM. Subsequently the indent shall be forwarded to the GM(E&M)/HOD, MCL HQ for further technical vetting and seeking approval of the competent authority as per the DOP.

The indent prepared in all the above three cases shall also be accompanied by a proposal initiated from the project level for procurement of weighbridges.

Note: Life of electronic weighbridge is 10 years.

- d) Competent Approval & preparation of Technical parameters and proveness criteria: Once the proposal along with the indent has been approved by the competent authority, the TPS will be prepared by the concerned engineer looking after the job of WB dept, MCL HQ and after vetting of G.M/ HOD (E&M), the same will be forwarded to the GM (MM) In-charge/HOD, MCL HQ for procurement.

Responsibility: E&M Engineer (WB) and GM(E&M)/HOD MCL HQ.

2. **Procurement:** Procurement shall be done as per the extant provisions of the purchase manual of CIL and other relevant guidelines of the Company.

Responsibility: GM(MM)/HOD, MCL HQ.

3. **Site Selection, Installation & Commissioning of Rail Weighbridges.**

I. Site Selection:

Responsibility : Site selection is the responsibility of Project Engineer (E&M), Project Engineer (Civil), SO(E&T)/ Nodal Officer (Maintenance), WBs, PO & Area Sales Officer agreed by Area GM after vetting by concerned deptt at Area & it should be in accordance with prevailing RDSO Specifications & Guidelines (in consultation with Railways).

II. Installation & Commissioning: As per Supply Order (Overall Responsibility – Project Engineer (E&M) & Staff Officer(E&M)).

a) E&M: - Responsibility :Project Engineer (E&M)/Staff Officer(E&M).

- i. Power Supply arrangement-3 phase supply is preferred (one for AC, One for Weighment systems & One for Utility).
- ii. Stabilized power supply of 220 volt AC.
- iii. N-E Voltage should be less than 2 Volt. (*Neutral must be continuous and earthed at Transformer point.
- iv. Lightning arresters shall installed & maintained near the control rooms of the Weighbridges

b) Civil: Responsibility:Project Engineer (Civil)/Staff Officer(Civil).

- i. Construction of Control room shall preferably within 10-15 meters of selected location of weighbridge.

c) Network & System Related issues:-Responsibility: SO (E&T), SO (System)

4. Operation & Maintenance

- I. Weighbridge must be operated by designed/authorized trained persons only. i.e Weighbridge Clerk.
- II. All statutory guidelines circulated time to time should be followed.
- III. Weighbridge should not be operated without printers.
- IV. Digitizer of the weighbridge must be sealed by Weight and Measure deptt of Govt. of Odisha.

(Overall Responsibility of Operation of Rail Weighbridge – PO, Siding In-charge/ Nodal Officer (Operations), WBs & Staff Officer (Sales)).

a. Responsibility of siding In charge.

- i. A Service Cum Break down Register/ LOG BOOK should be maintained and kept in WB to record each and every activity done for operation and maintenance of WB.
- ii. Daily status of the WB to be noted and deficiencies should be reported to concerned deptt, in writing.
- iii. All electrical parameters should be maintained otherwise same to be reported to Nodal Officer (Maintenance) WBs.
- iv. Daily status (OK/ BD) of the WB system must be recorded on Shift basis in the LOG BOOK. Standard Format of Service-cum-Breakdown register is enclosed and also available with CAMC Work Orders.
- v. WB shall be maintained clean and ensured by nodal officer (OP).
- vi. Weighbridge shall be maintained dust free and outsiders/unauthorized person shall not be allowed to enter in the WB room.
- vii. A record of visitors at the weighbridges is to be maintained in a bound register, prevention of unauthorized entry shall be ensured.
- viii. All CAMC service persons shall have ID and needs to show while entering in Weighbridge cabin.
- ix. A list of CAMC service persons shall be displayed at Weighbridge cabin. The list shall be circulated by G.M / HOD (E&M) for each new CAMC.
- x. Annual Stamping certificate must be displayed in all Weighbridge rooms.

b. Responsibility of WB Operator/ Clark on duty:-

- i. Zero reading of the Digitizer should be verified & recorded in the LOG BOOK before the starting of each shift – on daily basis before commencement of operation of WB.
- ii. WB is to be isolated and electrical supply shall be switched off during raining/thundering.
- iii. When operators leave the WB room, they must switch off and isolate the WB system & record it in the LOG BOOK that power of WB has been isolated. When the operator will reach in WB Room for operation, they should investigate & report as under in the LOG BOOK itself.

6. Copy of Coal Net Entry in weighbridge module
 7. Offer/ PI / Invoice
 8. Any other relevant documents
 9. Copy of FIR (if applicable)
- d. Electrical maintenance : Responsibility :- Project Engineer (E&M)
- i. Availability of 3 phase supply (415 volt ac.)(One phase for weighment system, One for AC & One for utilities).
 - ii. Availability of CVT/stabilizer for weighing system and UPS with minimum 2 hours back up.
 - iii. Maintenance of minimum 3 earth pit of earth resistance less than 1 ohm and well connected with the system, platform, lightning arrestor. Earth resistance shall be measured in regular intervals as specified in CAMC with the help of CAMC holder.
 - iv. Surge protector for power supply should be connected with separate earth pit.
 - v. Arrangement of isolation of system from power supply in case of lightning and heavy rain with clear instruction displayed at isolation point to isolate the system.
 - vi. Earth neutral voltage should be maintained less than 2 volt.
 - vii. Air conditioners & Fans to be maintained.
 - viii. Monthly service reports(submitted by CAMC holder to GM) to be kept at WB by Project Engineer (E&M).
 - ix. A separate LOG BOOK must be kept and maintained at each and every weighbridge for recording each and every maintenance/repair work done by AMC Holder and the same should be signed by WB staff on duty, Nodal Officer (Maintenance), Siding In-Charge & CAMC Holder. CAMC holder shall submit weigh bridge wise monthly service report to G.M of respective area with a copy to G.M(E&M)/HOD , MCL HQ.
 - x. Proper training shall be conducted to weighbridge clerks /operators regularly on weighbridge operations.
- e. Civil maintenance: Project Engineer (Civil)/Staff Officer (Civil).
- i. All doors, windows, auto door closer to be maintained properly to avoid dust.
 - ii. Railway Track Cleaning& maintenance – Responsibility:- Project Engineer (Civil), Staff Officer (Civil) & Siding I/C with co-ordination with Railway authorities.
- f. Installation of Electronic items& weighment data communication equipment from Weigh bridges:
- i. Installation of minimum two CCTV Cameras which cover entire Weigh Bridge cabin including Digitizer and also covers the entire weighment platform is to be installed.
 - ii. Equipment & network required for implementation of FOIS is to be taken care by Nodal Officer (maintenance), SO (E&T)& G.M/ HOD (E&T), MCL HQ.
 - iii. Patch/Application software and its security/maintenance/ Weighment Software & data communication software is to be properly checked and maintained by SO (system), G.M / HOD (System), MCL HQ by coordinating with Nodal officer (M) & CAMC holder.

g. Annual verification/Re-verification/Stamping of the WBs:

i. A stamping register shall be maintained by project Engineer (E&M) to record the details of the stamping and stamping parameters such as tare count, Cal Weight and Cal Count etc...During each stamping.

ii. SO (E&M), SO (E&T), Nodal Officer (s), Area Sales Manager & Siding In charge/ Dispatch in charge (as case may be) of respective project are to be present while stamping (both annual and stamping due to B/D) of the weighbridge and are responsible for noting the above mentioned parameters in stamping record and to verify whether any changes have been found in stamping parameters compared to previous stamping. If any changes found, the same shall be informed to MCL HQ for further necessary action

iii. The scheduled stamping date is to be communicated by SO (E&M) of that particular area to Vigilance department, E&M, E&T depart...of MCL HQ for information

iv. Deposit of requisite fees to Railways for providing FIO Test Van, liasoning with Railway Authority & with Weigh & Measure Deptt., Govt, of Odisha shall be carried out well in advance (preferably Three months) for annual stamping, Break down stamping by PE (E&M), SO (E&M), SO (M&S) & PO.

Responsibility: - Overall responsibility is with Project Engineer (E&M) & PO of the Project

h. CAMC of WBs : Proper comprehensive AMC is to be done for Rail WBs as per existing practice or any other modification done time to time as per guideline from higher authority. Over all execution of the CAMC shall be the responsibility of PE (E&M), EiC i.e SO (E&M).

Responsibility: - PE (E&M), SO (E&M), E&M Engineer (WB), MCL HQ & GM(E&M)/HOD, MCL HQ.

i. Repairing of PC system:-

i. Hard Disc if changed should be kept in custody of Dispatch Officer or area sales officer and it should be recorded accordingly.

j. Responsibility of Security : Security Personal at Siding & Weighbridge:

1. Not to allow unauthorized persons in to weighbridge cabin/ control room.
2. Safeguard the all equipment and accessories inside and outside the weighbridge cabin from theft, damage.

k. Following report is to be prepared & maintained by Project Engineer(E&M) duly signed by CAMC holder and Project Engineer(E&M) and countersigned by Staff Officer(E&M) on monthly basis.

- i) Stabilizer/UPS available with the system
- ii) Availability of 2/3 nos. of Earth Pits.

yes/no

Yes/no

Cont...Pg/7

- iii) Earth pit is well connected with system, platform & Lightning arrestor separately . yes/no
- iv) Value of Earth pit resistance (in Ohm) _____
- v) Any other improvement required in operation of WB to be recorded.
- vi) Surge protector in Power Supply with earth pit. Yes/no
- vii) Condition of WB room : Clean/Dusty/Remarks if any.
- viii) Door/window: Ok/broken/Remarks if any.
- ix) Coal or coal dust available within 50 mtr. Radius yes/no

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Responsibility Matrix of Rail Weighbridge SOP

1. Planning:

Planning of Rail WBs as per PR Provision or Scheme or against Survey off

Responsibility: PE (E&M), Siding-In-Charge, Manage, Project Officer



Vetting of the requirement

Responsibility: SO (M&S) & SO (P&P)



Recommendation of the requirement

Responsibility: SO (Mining)/ AGM



Agreed By:

Responsibility: Area General Manager



Preparation of Indent

Responsibility: Nodal Officer (Maintenance), WBs, PE (E&M) & SO (E&M)



Forwarding Proposal to HQ for competent approval

Responsibility: Area General Manager



Getting Indent Approval, Preparation of TPS, Proveness Criteria and obtaining approval

Responsibility: E&M Engineer, WBs HQ & G.M/ HOD (E&M), MCL HQ, Preparation of TPS shall be the responsibility of G.M/ HOD (E&T), MCL HQ



Approved proposal to be sent to GM (MM) for procurement

Responsibility: G.M/ HOD (E&M), MCL HQ

Ch. Pawan

Responsibility Matrix of Rail Weighbridge SOP

2. Procurement & Installation:

Procurement of Rail WBs:

Responsibility: GM/ HOD (MM), MCL HQ



Site Selection:

Responsibility: Nodal Officer (Maintenance), WBs, PE (E&M), PE (Civil), SO (E&T), PO, SO (M&S) Agreed by Area G.M in consultation with Railway Authorities.



Installation & Commissioning:

Responsibility: Nodal Officer (Maintenance), WBs, PE (E&M) & SO (E&M) for E&M related jobs.

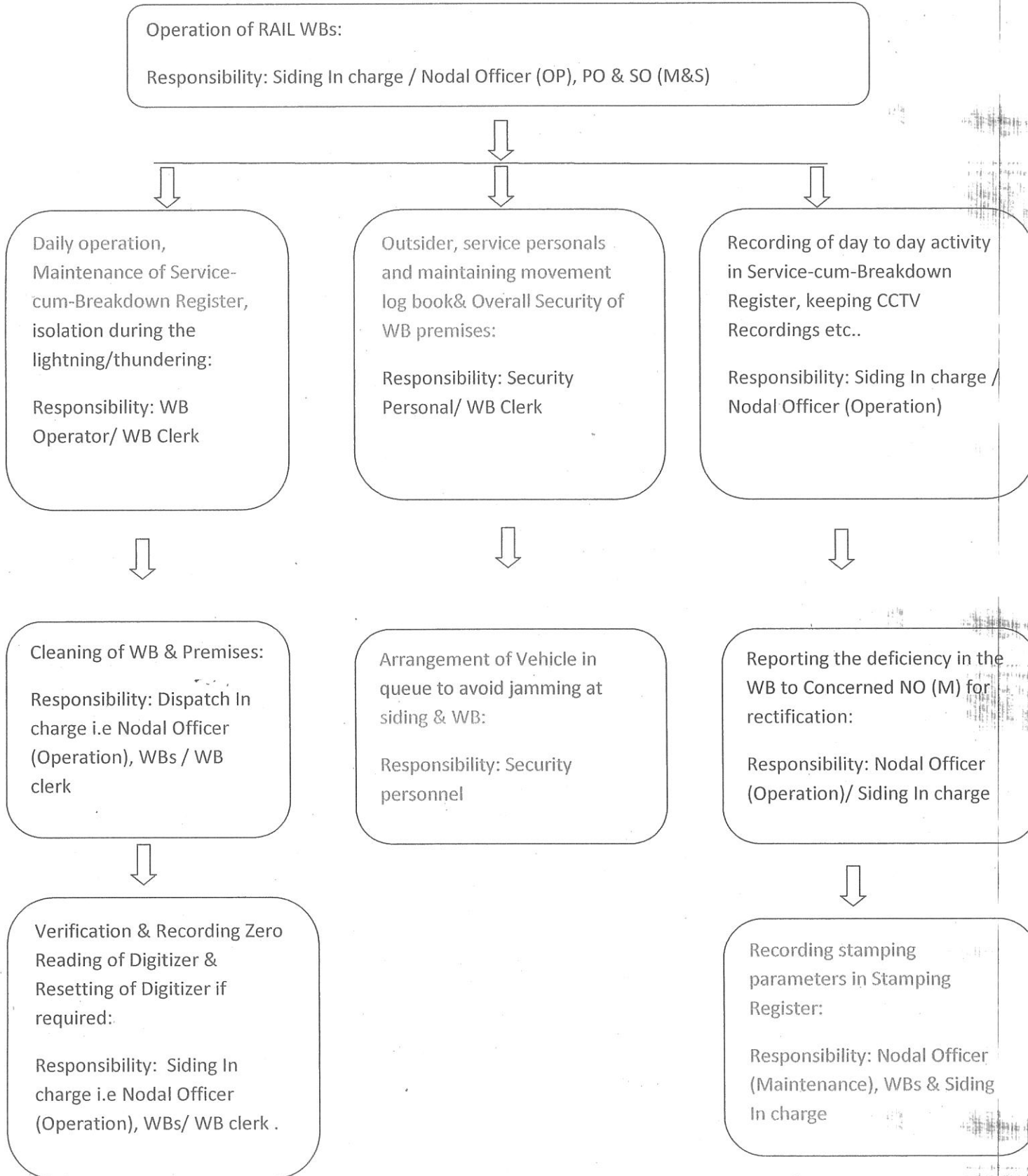
Responsibility: PE (Civil) & SO (Civil) for Civil Related Jobs.

Responsibility: SO (E&T) & SO (System) for network & Software Related Jobs.

Ch. Ravary

Responsibility Matrix of RAIL Weighbridge SOP

3. Operation:



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Responsibility Matrix of Rail Weighbridge SOP

Overall Responsibility : Nodal Officer (Maintenance) WBs, PE (E&M) & SO (E&M)

4. Maintenance:

Electrical & Mechanical Maintenance

Responsibility: PE (E&M)



Civil Maintenance

Responsibility: PE (Civil) & SO (Civil)



Software & Network Maintenance

Responsibility: Area System Officer, GM (Systems)/ GM (M&S) MCL HQ

Responsibility: SO (E&T) & GM/ HOD (E&T) for network related Jobs.



Annual Verification/ Re-Verification & Stamping of WB

Responsibility: NO (M), PE (E&M), Siding In Charge / NO(OP), SO (M&S), SO (E&M)



Timely Finalisation of CAMC of Rail Weighbridges

Responsibility: E&M Engineer (WBs), G.M/ HOD (E&M), MCL HQ



Repairing and B/D & Preventive maintenance of WBs

Responsibility: NO (M), WBs, PE (E&M) & SO (E&M)



Maintenance of various LOGBOOKS

Service Cum-Break down Register, Persons movement Log Book, system status register, stamping register: WB Clerk, Siding In charge

Preventive maintenance Register / Service reports: NO (M) & PE (E&M)

Ch. Par...