इलेक्ट्रानिकी एवं दूरसंचार विभाग
Electronics & Telecom Department
महानदी कोल्फील्ड्स लिमिटेड
(भारत सरकार का उद्यम)
MAHANADI COALFIELDS LIMITED
(A Government of India Enterprise)

ITUWTSA NEW DELHI 2024

संदर्भ क्रमांक/ Ref No: MCL/HQ/E&T/24/1202 **दिनांक/ Dated: 03.08.2024**

To,

The Area General Manager -
Jagannath, Bharatpur, Lingaraj, Hingula, Kaniha, Talcher Area
Lakhanpur, Ib Valley, Basundhara, Mahalaxmi, Orient Area

SUBJECT: Approved Standard Operating Procedures for RFID Based Boom Barrier Systems in MCL.

Dear Sir,

In order to have uniform guidelines to be followed across MCL with regard to Planning, Procurement, Installation, Operation and Maintenance of RFID Based Boom Barrier Systems in MCL, comprehensive Standard Operating Procedures (SOP) for RFID Based Boom Barrier Systems is enclosed herewith for implementation by all concerned.

You are requested to go through the SOP and instruct the concerned for ensuring implementataion of the same in your Area. This SOP supersedes the previously issued SOPs w.e.f. 03.08.2024.

This has the approval of competent authority.

भवदीय

05/08/2024

विभागाध्यक्ष (इ एवं टी) / HoD (E&T)
महानदी कोलफील्ड्स लिमिटेड/ MCL

Copy to:

i. Director (Pers), Director (Tech/Op), Director (Tech/P&P), MCL – for kind information
ii. TS to CMD, MCL
iii. TS to D(P), TS to D(T/Op), TS to D(T/P&P), MCL
iv. GM (Vigilance), MCL HQ
v. GM (Security), MCL HQ – with request to circulate to all Area Security Officers and Project Security Officers.
vi. GM (Finance), GM (MM), GM (E&M), GM (M&S), MCL HQ
vii. Staff Officer (E&T)/ Area Incharge (E&T) - Jagannath, Bharatpur, Lingaraj, Hingula, Kaniha, Talcher, Lakhanpur, Ib Valley, Basundhara, Mahalaxmi, Orient Area
viii. Office Copy - File No. 78

STANDARD OPERATING PROCEDURES
For
RFID BASED BOOM BARRIER SYSTEM OF MCL

Engineer Incharge for RFID Based Boom Barrier system.

- For Area & Project – Staff Officer (E&T) or as authorized by Area General Manager.

Nodal Officer RFID Based Boom Barrier system (Maintenance) shall be as under:

- For Unit (Project) – PE (E&M), or as authorized by the Project Officer.

Nodal Officer RFID Based Boom Barrier system (Operations) shall be as under:

- For Unit (Project) –Security Incharge of the Project.

1. ASSESSMENT OF REQUIREMENT:

Nodal Officers RFID Based Boom Barrier system (Operations) shall identify the locations of entry & exit of mines in consultation with the Area Security officer /his representative, Mines Manager & Project Officer and assess the requirement of RFID Based Boom Barrier system for such locations. This should include all vulnerable Mine entry and mine exit locations. It should always be considered that all authorized Mine Entry & Exit for Internal coal transport vehicles and road sale vehicles should be comprehensively covered with a based Boom Barrier system. The assessment should clearly indicate the name of the location(s), with latitude & longitude details, the number of RFID Based Boom barriers & other accessories to be installed at such location(s), and any other relevant functional information as a complete system.

Nodal Officer RFID Based Boom Barrier system (Operations) shall provide the assessed requirement to the concerned Nodal Officer RFID Based Boom Barrier system (Maintenance) of the Unit, after obtaining administrative approval of the Project Officer.

Responsibility – Nodal Officer RFID Based Boom Barrier system (Operations) of the Unit

For MCL HQ, the identification of Strategic Locations and assessment of the requirement of RFID Based Boom Barrier shall be done by the Chief of Security/ General Manager (Security), and obtain the administrative approval of the concerned director before sending it to the E&T Department, MCL HQ.

2. INDENT:

After receipt of the requirement, administratively approved by the concerned competent authority, the Survey shall be done by the Nodal Officer RFID Based Boom Barrier system (Maintenance) and accordingly, an Indent and proposal shall be prepared.

While preparing the indent and proposal, the following should be ensured:

a. Boom Barrier system should be standard which can be integrated with standard Centralized Command and Control Software and MCL SAP.

5/8/2024

b. RFID Based Boom Barrier system should be integrated with the E-Surveillance and Control Room of the Project / Area, and required reports should be made accessible at MCL HQ.
c. CAMC should be included in the proposal to cover the maintenance for the entire life of the system.
d. All Boom Barrier requirement proposals are required to be routed through the concerned Area Security Officer for his observation if any and the proposal will also be vetted by the General Manager(Security)/HOD.

The approval of the indent and proposal shall be as per DoP.

Responsibility – Nodal Officer RFID Based Boom Barrier system (Maintenance)

If the proposal of Unit level is approved at Area/ MCL HQ, or if the proposal of Area is approved at MCL HQ, then the assessment may also be vetted by the Area SO(E&T) and General Manager (E&T)/HOD.

For the purpose of this clause, the Concerned Competent Authority is defined As per DoP or as under :

- For Unit (Project) – Project Officer.
- For Area – Area General Manager
- For MCL HQ – Functional Director

3. PROCUREMENT:

After receipt of the approved indent, as this item is a decentralized item the procurement of RFID Based Boom Barrier system,RF ID tags etc. shall be done as per DoP, and should be prioritized as it relates to the safety and security of business operations.

Responsibility – MM Department of Area/ MCL HQ

4. **Installation and commissioning of RFID Based Boom Barrier system:**

a. Daily supervision & monitoring for new installation as and when required.

Nodal Officer RFID-Based Boom Barrier System (Maintenance)

b. Speed Breaker, Barricades, and Sign Boards shall be provided at suitable distances at check posts to control the movement of vehicles and smooth operation of RFID readers, IR sensors, and Boom Barriers. Speed breakers and sign boards shall also be provided at the Boom Barrier location for the smooth operation of the system.

Responsibility – Nodal Officer RFID Based Boom Barrier system (Operations)

c. To certify the system installation, commissioning & acceptance report as per the terms & conditions of the contract.

Responsibility – Nodal Officer RFID Based Boom Barrier system (Maintenance) and SO(E&T)

5/8/2024

d. There should be only authorized entry and exit to the mine for coal transporting vehicles where RFID boom Barrier system should be installed and other openings, if any shall be strictly fenced/barricaded/locked. Height limiter/s to be installed if more than one road exists and it should be ensured at the Boom Barrier location Boom barrier approach road width should be narrowed to allow only one vehicle to pass with the help of blocks/dividers etc.

Responsibility –Project Officer

5. **Maintenance of RFID Based Boom Barriers system:**

a. All equipment of the Boom Barrier system should be in working condition.
Responsibility-Nodal Officer RFID Based Boom Barrier System (Maintenance) and SO(E&T).

b. In case of any fault or breakdown, a report to PE (E&M), SO (E&T) & Project Officer is to be rendered. In case of deliberate damage to any devices, the same is to be reported to the unit security-in-charge and area Security Officer.
Responsibility-Nodal Officer RFID Based Boom Barrier System (Operation)/Boom Barrier Operator.

i. To take necessary action on receiving the breakdown report of the Boom Barrier system.

ii. To ensure the smooth functioning and maintenance of all Boom barrier system equipments.

iii. Coordinate with CAMC/WARRANTY service provider for providing technical support with availability for timely rectification of the Breakdown.

iv. To take necessary action for procurement of critical/consumable spares as required and ensure their availability for timely replacement as per requirement.
Responsibility-Nodal Officer RFID Based Boom Barrier System (Maintenance).

c. It shall ensure that real-time weighment data is transferred from weighbridges to the central server /data centre. Also, to ensure capturing registration no of vehicles at road weighbridges shall be made automatically with tare weight, Gross weight etc. without any manual interference using RFID-based weighment integration.

Responsibility-Nodal Officer RFID Based Boom Barrier System (Maintenance).

6. **Operation of RFID Based Boom Barriers system:**

i. Permanent RFID tags should be provided to all internal vehicles and In case of Road sale vehicles issuance and collection of temporary RFID tags shall be arranged from the office of Dispatch Incharge (or as place decided by the Project Officer) on a daily basis. No vehicle should be allowed in mine premises without RFID tags. All issued tags shall be collected along with gate passes by the security personnel.

5/08/2024

Responsibility-Nodal Officer RFID Based Boom Barrier System (Operation).

ii. In case of any equipment of Boom Barrier system theft or deliberate damage, the security Incharge of the Project/Area is to take appropriate action & report to The dispatch incharge and the project officer is to take necessary action for recovery of the cost against the equipment damaged by the transporter or concerned personnel.

Responsibility-Nodal Officer RFID Based Boom Barrier System (Operation).

iii. For sharing/sending weighment data from weighbridges to the Area Server should be obtained from the Weighbridge PC Database. Access to the database shall be by the concerned authorities, i.e. Weighbridge CAMC provider, State Government, etc.

Responsibility-Nodal Officer RFID Based Boom Barrier System(Maintenance).

iv. The existing vehicle database of Internal Transport Vehicles shall be taken from the Dispatch Incharge or the concerned official and provided to the Boom Barrier system/service provider to detect and allow such vehicles in and out of the gate, along with proper records of transactions.

Responsibility-Nodal Officer RFID Based Boom Barrier System (Operation).

v. For Road Sale Transport Vehicles, the details of vehicles expected for Coal Transport shall be provided by the dispatch Incharge of the project and the same shall be provided to the Boom Barrier system/service provider. For the creation of a database of such vehicles is to be created in the Area Server & RFID tag write by the Boom Barrier system/service provider.

Responsibility-Nodal Officer RFID Based Boom Barrier System (Operation)

vi. As per the details provided by the Dispatch Incharge of the project the Temporary RFID Tags shall be write by the Boom Barrier operator or Boom Barrier system service provider and the same shall be activated as per the vehicle details in the database, and handed over to an Authorized Person of Nodal Officer RFID Based Boom Barrier System (Operation) and they will distribute the Temporary RFID Tags to the concerned Road sale transporter.

Responsibility-Nodal Officer RFID Based Boom Barrier System (Operation)

vii. The transporter should ensure that Temporary RFID Tags are only issued to the correct vehicle as details submitted by him for issuing the Temporary RFID Tags. In case of any mismatch found in Temporary RFID Tags vehicle details and vehicle entry/exit from mines. Report of such incident to be submitted to the Project Officer

5/8/2024

for suitable action as deemed fit.

Responsibility-Nodal Officer RFID Based Boom Barrier System (Operation)

viii. In any exceptional circumstances when there are technical errors in the operation of the boom barrier system and manual override is required to open the Boom Barrier gate. In all such cases, the operator shall take permission from the Nodal officer operation /Maintenance or his representative and maintain the records of duration and reason for breakdown/non-operation. Report of such incidents to be submitted to the Project Officer and Area General Manager by the Nodal Officer Boom Barrier System (Operation) and A monthly statement shall be submitted by the Area General Manager to the concerned Director (Technical), MCL.

Responsibility-Nodal Officer RFID-Based Boom Barrier System (Operation)

ix. In case any vehicle other than the permitted vehicles is to be allowed to enter the mine premises, the Boom Barrier operator shall not allow any such vehicle to enter before seeking the gate pass issued by the MCL authorities and assigning a temporary tag to it. Manual override of boom barriers shall not be used to allow such vehicles inside the mine. If allowed to such vehicles permission of the Project Officer is required. The Boom Barrier Operator shall keep a record of all such permissions granted by MCL

Responsibility-Nodal Officer RFID-Based Boom Barrier System (Operation)

x. During Installation, Commissioning, trial run & CAMC/Warranty period Safety and security of the Boom Barrier system shall be ensured, and In case of theft and damage necessary action for recovery of damage and restoration of the system by the Area and project.

Responsibility-
Nodal Officer RFID Based Boom Barrier System (Operation)& Maintenance

7. E-SURVEILLANCE and MONITORING :

Monitoring from the E-Surveillance Room (Controls room) should be ensured at Project as well as Area Level for effective surveillance and to act thereon round the clock. The respective management of the Project/ Area has to ensure that the RFID-based boom Barrier system is effectively utilized by the concerned Security In-charge and dispatch Incharge.

Responsibility – Project Officer/ Area GM

8. EFFECTIVE UTILIZATION:

Nodal Officer RFID Based Boom Barrier system (Operations) shall ensure the effective use and proper functioning of the RFID Based Boom Barrier system.

5/08/2024

At the Boom Barrier location Breakdown of any equipment is observed by the Boom Barrier operator, the same has to be brought immediately to the notice of the Nodal Officer RFID Based Boom Barrier system (Maintenance) and recorded in a physical register kept in the e-Surveillance and Control Room/Boom Barrier operation room. Nodal Officer RFID Based Boom Barrier system (Maintenance) shall take the necessary action on receipt of such information, and record the same with reference to the incidence, in the said physical register.

Responsibility – Nodal Officer RFID Based Boom Barrier system (Operations)

5/8/2024