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**वेस्टर्न कोलफील्ड्स लिमिटेड**
मिनीरत्न कंपनी,
कोल इंडिया लिमिटेड की अनुषंगी कंपनी
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संदर्भ क्र: नाग./वेकोलि/वि.ए.वि./2026/ 782 दिनांक:21.11.2026

# NOTICE

**Subject:** Standard Operationg Procedure (SOP) for End-to-End Monitoring of Road Coal Despatches to Thermal Power Plants through Integration of Systems of Coal Companies and Power Houses.

Please find enclosed herewith approved Standard Operating Procedure issued by Coal India Limited, laying down the operational, technical and administrative guidelines for implementing end-to-end GPS based vehicle tracking system integration for coal supplies to Thermal Power Plants (TPPs) via Road Mode.

Thermal Power Plants are advised to establish the required API Integration between their GPS tracking systems and WCL on or before **31.03.2027.** It is to inform that non-compliance with sytem integration by 31.03.2027 shall result in the suspension of coal supplies via Road Mode from **01.04.2027** onwards.

This is for information and further needful in the matter.

21/11/26

General Manager (M&S), WCL

Copy to:

1. TS to DT(OP), WCL
2. GM (System), WCL
3. . GM (E&T), WCL
4. AGMs All Areas WCL
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**Subject: End-to-End Monitoring of Road Supplies to Power Houses w.e.f. 01.04.2027 – Integration of Systems of Coal Companies and Power Houses**

## 1. Background and Objective:

In accordance with the requirement to implement an end to end system - monitored road evacuation mechanism for coal supply to Thermal Power Plants with 100% despatch through the Integrated System w.e.f. 01.04.2027, the following modalities have been approved by the competent authority.

The prescribed arrangement requires integration of the systems of Coal Companies (Sellers) with the existing end-to-end vehicle tracking systems of Power Houses (Purchasers). The integrated arrangement is intended to provide visibility of the movement of each truck from the designated coal loading point to the designated unloading point, including recording and approval of transit exceptions.

This SOP lays down the operational, technical and administrative procedure for implementing the integration, covering dispatch information, GPS-based vehicle tracking, geo-fencing, delivery confirmation, exception reporting and consumer approval.

## 2. Scope and Applicability:

For coal lifted by any Powerhouse through Road mode, from the despatch point (Road Weigh-Bridge) to the unloading point (Power Stations, washery, good-shed etc.,), a GPS-based vehicle tracking system integrated with geo-fencing/similar technologies shall facilitate end-to-end visibility, movement monitoring and verification of delivery.

Any exceptions during transit, including route deviations, unauthorised diversions, stoppages or deviations from the designated unloading point, shall be duly recorded in the system. Such exceptions shall be reviewed and explicitly approved by the concerned consumer. A trip involving exceptions shall be considered valid only after the consumer's approval is recorded in the system. Till such time the approval is awaited, fresh despatch of coal shall be kept in abeyance.

Accordingly, all Coal Companies shall inform all the respective Power Houses for installation of end-to-end vehicle tracking systems for Road despatches. The systems of Coal Companies shall be integrated with the existing tracking systems of the respective Power Houses, wherever available, to facilitate seamless exchange of vehicle movement and delivery-related information.

The required system integration is to be completed on or before 31.03.2027, to facilitate end-to-end monitoring of all Road supplies to Power Houses from 01.04.2027.

Non-compliance with the above requirement shall lead to suspension of coal supplies to the concerned Powerhouse by Road Mode from 01.04.2027 until the required system integration is established.

### 3. Proposed System Integration Architecture

| Interface | Data flow | Purpose |
|---|---|---|
| Dispatch Data Interface | Coal Company → Customer | CIL shall provide Unique No., Sales Order No., Dispatch Date and Weighment Time. |
| GPS Tracking & Exception API | Customer → CIL Portal | Customer shall provide periodic GPS location data and movement-related exceptions. |
| Coal Receipt Confirmation API | Customer → CIL Portal | Confirms customer-end arrival, weighment against the reference data |

**Note:**

**Responsibility principle:** The Power House shall remain responsible for the operation, maintenance and monitoring of its GPS tracking arrangement fitted on the vehicles of consumer/deployed on behalf of consumer, including GPS device availability, connectivity and transmission of tracking information. The Coal Company shall receive and use the information through the integrated interface. System integration shall not transfer responsibility for operating the purchaser's GPS infrastructure to the Coal Company.

### 4. Roles and responsibilities

| Stakeholder | Key responsibilities |
|---|---|
| CIL Headquarters | Issue SOP, coordinate with subsidiaries, monitor implementation progress and review compliance. |
| Coal Company/ Subsidiary Headquarters | Coordinate with Power Houses, arrange ERP integration, nominate nodal officers, monitor integration readiness and resolve issues. |
| Coal Company Area / Loading Unit | Shall ensure regular reviewing of receipt of coal at Customer’s premise. In the event of any trip involving exceptions, the same shall be considered valid only after the consumer's |

| | |
|---|---|
| | approval is recorded in the system. Till such time the approval is awaited, fresh despatch of coal shall be kept in abeyance. |
| Power House / Purchaser | Provide tracking-system details, facilitate integration, ensure GPS tracking of deployed vehicles, provide delivery information and review/approve exceptions.<br><br>Facilitate API connectivity, GPS data transmission, geo-fence configuration, exception generation and technical support, under the Power House's responsibility. |
| ERP / IT Service Provider | Develop, configure, test and maintain the required interfaces and system-level validations. |

## 5. Detailed operational procedure

### 5.1 GPS-based vehicle tracking and geo-fencing

After dispatch, the purchaser's GPS tracking system shall capture and transmit the movement of the vehicle from the designated loading point to the designated unloading point.

The GPS system shall support:

1. Every customer shall ensure that all trucks deployed for lifting coal are equipped with functional GPS tracking devices capable of generating and transmitting vehicle-location information preferably a GPS Version AIS 140 or better.

2. GPS devices shall be capable of transmitting the vehicle's latitude, longitude, date, time, speed and other prescribed tracking parameters.

3. Customers shall ensure uninterrupted operation of GPS devices throughout the journey from the loading premises to the designated unloading destination.

4. Customers shall ensure that the GPS tracking system is capable of transmitting the prescribed tracking information and movement-related exceptions to the CIL through standardised APIs.

5. Any GPS failure, disconnection, tampering or interruption in data transmission shall be the responsibility of the customer and shall be reported through the prescribed mechanism.

6. The GPS device specification should explicitly include Dual SIM with Connectivity 4G or higher, to improve network availability and reduce

tracking interruptions during transportation across areas where coverage of one telecom operator may be weak or unavailable.

**Data to be made available by Coal Companies to customers**

For every truck dispatch, the following information shall be made available to the concerned customer through the prescribed interface/API or customer access facility.

| Sl. No. | Field | Description | Datatype |
|---|---|---|---|
| 1 | Unique No. | Unique reference number for an individual truck dispatch/weighment transaction | VARCHAR (30) |
| 2 | Sales Order No. | Relevant SAP Sales Order number | VARCHAR(10) |
| 3 | Vehicle Registration No. | Truck registration number | VARCHAR (15) |
| 3 | Dispatch Date | Date of dispatch | DATE (YYYY-MM-DD) |
| 4 | Weighment Time | Time of completion of dispatch weighment | Timestamp ISO 8601 with time-zone offset |

Consumer in return shall provide the following details through the APIs.

### 5.1.1 Periodic GPS tracking data

The customer/GPS service provider shall transmit periodic tracking information through API at the prescribed frequency.

| Sl. No. | Field | Description | Datatype | Mandatory |
|---|---|---|---|---|
| 1 | Unique No. | Dispatch transaction reference provided by Coal Company | VARCHAR(30) | Yes |
| 2 | Sales Order No. | Sales Order Number | VARCHAR(20) | Yes |
| 3 | Despatch Date | Date | DATE (YYYY-MM-DD) | Yes |

| | | | | |
|---|---|---|---|---|
| 4 | Vehicle Registration No. | Truck registration number | VARCHAR(15) | Yes |
| 5 | GPS Device ID | GPS device identification | VARCHAR(30) | Yes |
| 6 | Latitude | Current latitude coordinate | DECIMAL(10,7) | Yes |
| 7 | Longitude | Current longitude coordinate | DECIMAL(10,7) | Yes |
| 8 | GPS Timestamp | Date/time when location was recorded | TIMESTAMP (ISO 8601 with time-zone offset) | Yes |
| 9 | Speed | Vehicle speed in km/hour | DECIMAL(6,2) | Yes |
| 10 | GPS Status | Valid / Invalid / No Signal | VARCHAR(15) | Yes |
| 11 | Heading/Direction | Direction of vehicle movement in degrees | DECIMAL(5,2) | Yes |
| 12 | Server Received Timestamp | Time at which CIL portal receives the data | TIMESTAMP (ISO 8601 with time-zone offset) | Yes |

### 5.1.2 Examination and approval of exceptions by the Power House

The customer shall transmit exception information through a separate API.

All GPS exception must be properly codified. Standard Codes to be used is given below:

| **Exception Code** | **Exception Category** | **Description** |
|---|---|---|
| GPS01 | GPS Disconnection | GPS device has stopped transmitting location data |
| GPS02 | GPS Power Failure | Power supply to GPS device has been interrupted |

| | | |
|---|---|---|
| GPS03 | GPS Tampering | Device tampering/removal detected |
| MOV01 | Route Deviation | Vehicle has deviated from the expected route |
| MOV02 | Prolonged Stoppage | Vehicle has remained stationary beyond prescribed time |
| MOV03 | Unauthorised Halt | Vehicle has stopped at an identified unauthorised location |
| MOV04 | Unexpected Movement | Movement inconsistent with the dispatch journey |
| DEL01 | Delayed Arrival | Vehicle has not reached destination within expected time |
| DEL02 | Journey Interruption | Journey interrupted due to breakdown, accident or other reason |
| API01 | Data Transmission Failure | Tracking data could not be transmitted to the CIL interface |

The following procedure shall be followed for handling exceptions:

1. An exception shall be generated or reported by the purchaser's GPS tracking system and transmitted to the Coal Company's system.

2. The concerned Power House shall examine the exception, including GPS history, route details, location and duration.

3. The authorised officer of the Power House shall explicitly approve or reject the exception in the system.

4. The approval/rejection status, remarks, approving authority and approval timestamp shall be recorded and made available to the Coal Company.

5. Where an exception is rejected or further clarification is required, the case shall remain open until the required action is completed.

6. The trip shall be treated as valid only after the purchaser's approval of the exception is recorded in the system.

The following fields shall be transmitted for each exception:

| **Sl. No.** | **Field** | **Description** | **Datatype** |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | Unique No. | Dispatch transaction reference | VARCHAR(30) |
| 2 | Sales Order No. | Sales Order Number | VARCHAR(20) |
| 3 | Despatch Date | Loading Date/Weighment date at Coal Company End | DATE (YYYY-MM-DD) |
| 4 | Vehicle Registration No. | Vehicle against which exception is raised | VARCHAR(15) |
| 5 | GPS Device ID | Device associated with the vehicle | VARCHAR(30) |
| 6 | Exception ID | Unique exception reference generated by customer/provider | VARCHAR(30) |
| 7 | Exception Code | Category of exception | VARCHAR(15) |
| 8 | Exception Description | Brief details of the event | VARCHAR(255) |
| 9 | Exception Start Time | Time when exception commenced | TIMESTAMP (ISO 8601 with time-zone offset) |
| 10 | Exception End Time | Time when exception ended, where applicable | TIMESTAMP (ISO 8601 with time-zone offset) |
| 11 | Latitude | Location of exception | DECIMAL(10,7) |
| 12 | Longitude | Location of exception | DECIMAL(10,7) |
| 13 | Duration | Duration of stoppage/disconnection, where applicable | INTEGER (Minutes) |
| 14 | Severity | Critical / Major / Minor, as prescribed | VARCHAR(10) |
| 15 | Remarks | Explanation provided by customer/provider | VARCHAR(500) |
| 16 | Exception Status | Open / Resolved / Closed | VARCHAR(15) |
| 17 | Reported Timestamp | Time of transmission to CIL portal | TIMESTAMP (ISO 8601 with |

| | | | |
|---|---|---|---|
| | | | time-zone offset) |

The customer shall ensure timely transmission of exception information and subsequent updates regarding restoration or resolution through API itself.

### 5.1.3 Customer-end delivery confirmation to CIL through API.

A trip involving any exception shall not be treated as valid merely on the basis of GPS arrival or delivery confirmation. Explicit approval of the concerned Power House must be recorded in the integrated system as Trip Open/Trip Closed.

| Sl. No. | Field | Description | Datatype |
|---|---|---|---|
| 1 | Unique No. | Unique reference number for an individual truck dispatch/weighment transaction | VARCHAR(30) |
| 2 | Sales Order No. | Relevant SAP Sales Order number | VARCHAR(20) |
| 3 | Vehicle Registration No. | Truck registration number | VARCHAR(15) |
| 4 | Dispatch Date | Date of dispatch/Loading | DATE (YYYY-MM-DD) |
| 5 | Weighment Time | Time of completion of dispatch weighment | TIMESTAMP (ISO 8601 with time-zone offset) |
| 6 | Gate Entry Date | Entry Date at Customer Premise | DATE (YYYY-MM-DD) |
| 7 | Gate Entry Time | Entry Time at Customer Premise | TIMESTAMP (ISO 8601 with time-zone offset) |
| 8 | Received Quantity | Quantity weighment at Consumer Premise | DECIMAL(13,3) |
| 9 | Remarks | Trip Open/Trip Closed | VARCHAR(500) |

A trip shall be eligible for closure after:

- Dispatch details have been successfully transmitted.

- GPS tracking information is available for the journey, subject to recorded exceptions.
- The vehicle's arrival at the designated destination is recorded.
- Customer-end delivery confirmation is received.
- All reported exceptions, if any, have been explicitly approved by the purchaser.

In case API infrastructure facility is not available at Powerhouse end, the relevant GPS information along-with exceptions are to be sent to the concerned Mine authorities of the coal company through any other electronic means mutually agreeable between the Coal company and Consumer.

**Data Preservation**: Due to the large volume of data—including vehicle GPS tracking records—only open exception cases shall be retained for record-keeping. Clear or closed cases shall be flushed from the database after a period of 4 days.