# CHAPTER VI

# Internal Controls and Monitoring

# 6 Internal Controls and Monitoring

*This chapter contains audit findings relating to internal controls and monitoring: functioning of government laboratories, issuance of transit passes, functioning of check gates/ weighbridges, conduct of inspections of mines by departmental officials and raids by the State Level Enforcement Squad.*

## 6.1 Introduction

A robust system of internal controls is vital for monitoring the mining activities of leaseholders and safeguarding the interest of the Government. In pursuance of this objective, the rules and notifications of the Government provide for verification of mineral ore grades through a system of sample collection; issuance of transit passes to authorise despatch of minerals from lease areas; checking of transit passes at check gates and weighment of the mineral despatched at weighbridges; and a system of periodic and surprise inspections by departmental officials and special squads, to exercise check over illegal mining.

By virtue of powers conferred under Section 23C of the Mines and Minerals (Development and Regulation) Act, 1957, the State Government framed Odisha Minerals (Prevention of Theft, Smuggling & Illegal Mining and Regulation of Possession, Storage, Trading and Transportation) (OMPTS) Rules, 2007, for prevention of theft, smuggling and illegal mining and to regulate the possession, storage, trading and transportation of minerals in the State of Odisha. The Rules provide for establishment of check-post(s) with or without barrier(s) and weighbridge(s) at any place within the State to check the transport and storage of minerals raised without lawful authority and to check the quality and quantity of minerals transported from lease-hold areas. It also provides for chemical analysis of the mineral analysed in a Government Laboratory/ laboratory of Public Sector Undertaking approved by the Government.

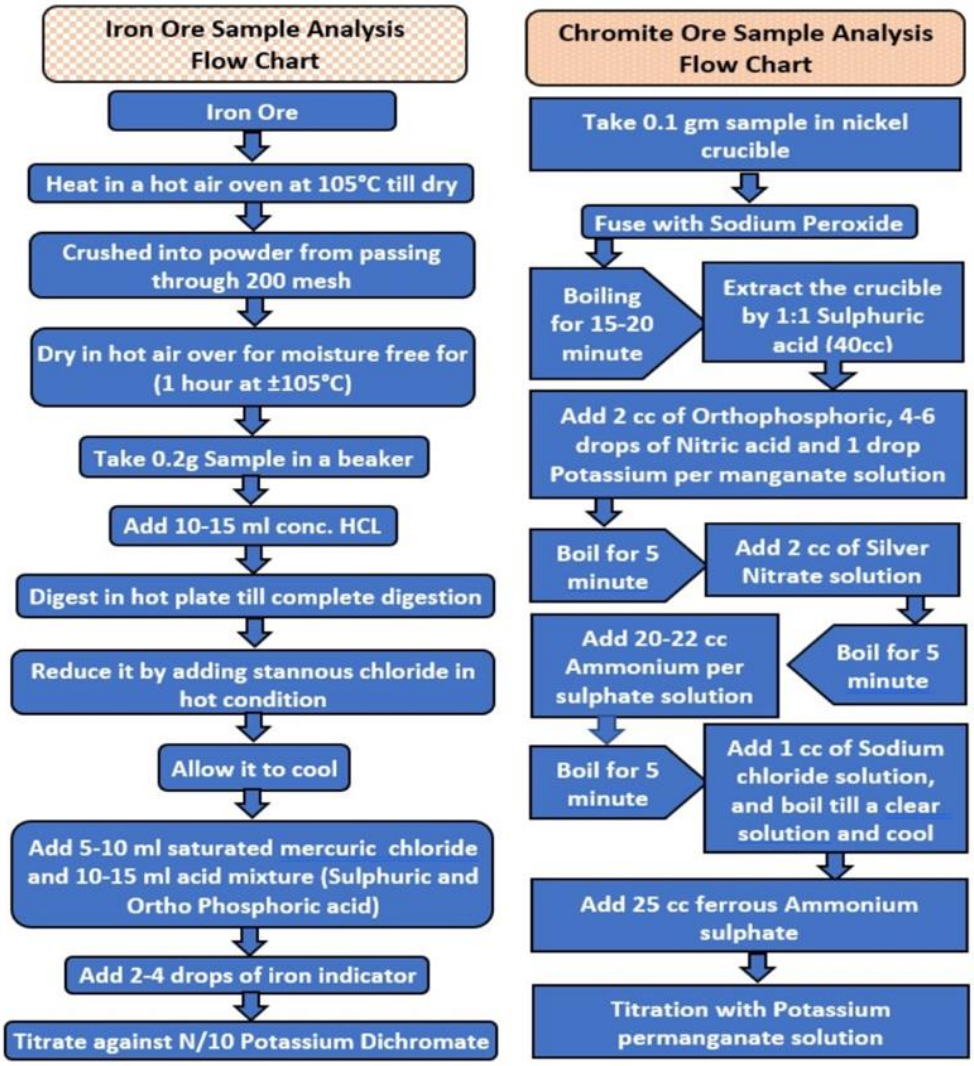
Audit observations, in this regard, are discussed in the following paragraphs.

## 6.2 Functioning of Government Laboratories

As per Rule 10 (5) of the OMPTS Rules, 2007, the lessee, after proper dressing, stacking, grading and analysis of the mineral, shall apply to the concerned Mining Officer or Deputy Director of Mines, as the case may be, for removal of such mineral, in proper form, along with copies of these chemical analysis report of the mineral, analysed in a Government Laboratory/ laboratory of Public Sector Undertaking approved by the Government.

Thus, before any mineral is removed from the lease area, it needs to be analysed, in an approved laboratory, to determine the grade of the mineral. This is to be done independently by the lessee, as well as by the mining officers, before the despatch of every consignment of minerals from the lease area. Analysis of minerals is to be done by collection of samples from the designated mineral stacks and testing of the same in approved government/ PSU laboratories. There are State Government chemical analysis laboratories at the circle level, in Joda and Jajpur Road, and a central laboratory at Bhubaneswar. A flow chart showing the chemical analysis procedure is depicted below:

**Chart 6.1: Flow chart showing process of chemical analysis of Iron and chromite samples**




***Source: Records of Deputy Directors (Chemical Analysis), Jajpur Road and Joda***

In this context, Audit examined the functioning of government laboratories, through scrutiny (September 2022) of records (stock registers of chemicals and registers of applications received from lessees for chemical analysis), for the

period 2015-22, in the offices of the Deputy Directors of Chemical Analysis (DDCA), Joda and Jajpur Road. Audit observations in this regard, are discussed below:

### 6.2.1 Analysis of ore samples without sufficient stock of essential chemicals

As per the Bureau of Indian Standards IS 12667-3 (1989), for chemical analysis of chromite samples, three chemicals, *viz*., ammonium persulphate, ferrous ammonium sulphate and orthophosphoric acid, are required. Similarly, for analysis of iron-ore samples, hydrochloric acid, mercuric chloride and orthophosphoric acid, are required.

i. In the office of DDCA, Joda, it was observed that the stock of chemicals, required for analysis of iron-ore samples, had been exhausted on 10 occasions, and there was a gap of 9 to 82 days in receiving new stock, during which the samples had been shown as having been analysed. Details in this regard are shown in the **Table 6.1.**

**Table 6.1: Iron-ore samples analysed without stock of chemicals (period 2015-22)**

| Sl. No. | Name of Chemical | Date on which stock of chemicals was 'nil' | Date of receipt of chemicals | No. of days when there was nil stock of chemical | Total no. of samples analysed during nil stock of chemicals |
|---|---|---|---|---|---|
| 1 | Mercuric Chloride | 06-Jun-2016 | 19-Aug-2016 | 74 | 1,479 |
| 2 | Mercuric Chloride | 26-Nov-2018 | 16-Jan-2019 | 51 | 1,255 |
| 3 | Mercuric Chloride | 25-May-2021 | 19-Jul-2021 | 55 | 4,762 |
| 4 | Mercuric Chloride | 29-Nov-2021 | 08-Dec-21 | 18 | 543 |
| 5 | Hydrochloric Acid | 26-Nov-2018 | 16-Jan-2019 | 51 | 1,255 |
| 6 | Hydrochloric Acid | 20-Dec-2019 | 11-Feb-2020 | 53 | 2,281 |
| 7 | Hydrochloric Acid | 02-Jul-2021 | 19-Jul-2021 | 17 | 1,665 |
| 8 | Orthophosphoric Acid | 26-Nov-2018 | 16-Jan-2019 | 51 | 1,253 |
| 9 | Orthophosphoric Acid | 20-Nov-2020 | 10-Feb-2021 | 82 | 6,795 |
| 10 | Orthophosphoric Acid | 11-Feb-2021 | 20-Feb-2021 | 09 | 718 |
| | **Total** | | | | **22,006** |

***Source: Compiled from DDCA Joda records***

In reply, the Government stated (September 2023) that, the store may reflect that the chemical position is nil but in actual there is some chemicals must be there in the Lab, to cater the analytical process. Even in some occasions chemicals has been diverted from Research Laboratory, Bhubaneswar to cater the emergency requirement of Joda Laboratory.

The Government's reply was not tenable as the stock records reflecting the existence of nil stock of chemicals should be the only authentic source of information and no documents substantiating the reply of the Government was provided to audit. Further, no requisition sent to Research Laboratory, Bhubaneswar for transfer/ diversion of chemicals was found on record.

ii. In DDCA, Jajpur Road, it was noticed that, out of a total of 31,677 samples, for which chemical analysis of chromite had been carried out during the years 2015-22, 31,340 samples had been analysed without sufficient stock of essential chemicals, such as ammonium persulphate (1 gram per sample), ferrous ammonium sulphate (39.21 gram per sample) and orthophosphoric acid (150 ml. per sample), in their respective proportions, as against the number of samples analysed. Details in this regard are shown in **Table 6.2.**

**Table 6.2: Chromite samples analysed without sufficient stock of chemicals (period 2015-22)**

| Financial Year | Chemical in short supply | No. of samples for which required quantity of chemical was available | No. of samples actually analysed | No. of samples analysed without the required chemicals |
|---|---|---|---|---|
| 2015-16 | Ammonium persulphate | 5,000 | 3,997 | 3,895 |
| | Ferrous Ammonium Sulphate | 102 | | |
| | Orthophosphoric Acid | 117 | | |
| 2016-17 | Ammonium persulphate | 6,000 | 5,013 | 4,947 |
| | Ferrous Ammonium Sulphate | 140 | | |
| | Orthophosphoric Acid | 66 | | |
| 2017-18 | Ammonium persulphate | 3,000 | 5,460 | 5,427 |
| | Ferrous Ammonium Sulphate | 38 | | |
| | Orthophosphoric Acid | 33 | | |
| 2018-19 | Ammonium persulphate | 4,500 | 5,111 | 5,078 |
| | Ferrous Ammonium Sulphate | 64 | | |
| | Orthophosphoric Acid | 33 | | |
| 2019-20 | Ammonium persulphate | 4,000 | 4,588 | 4,524 |
| | Ferrous Ammonium Sulphate | 64 | | |
| | Orthophosphoric Acid | 117 | | |
| 2020-21 | Ammonium persulphate | 1,500 | 3,024 | 2,998 |
| | Ferrous Ammonium Sulphate | 26 | | |
| | Orthophosphoric Acid | 50 | | |
| 2021-22 | Ammonium persulphate | 1,500 | 4,484 | 4,471 |
| | Ferrous Ammonium Sulphate | 13 | | |
| | Orthophosphoric Acid | 33 | | |
| | | **Total** | **31,677** | **31,340** |

***Source: Compiled from the records of DDCA, Jajpur Road***

Analysis of samples, without the required chemicals being in stock, posed serious questions over the validity of the analysis reports and there was a risk that the analysis reports had been issued without actual testing of samples.

In reply, the Government stated (September 2023) that, the system is that if the stock is exhausted from the store, it does not mean that particular chemical is not available in the Laboratory. So, the question of analysis of samples without chemicals does not arise but it involves a complete cyclic process.

The reply of the Government is not acceptable as when Government Laboratory's own records depict 'nil' stock, then without the required chemicals in stock, there is no possibility of analysis of ore samples. Therefore, the validity of the analysis reports cannot be assured.

### 6.2.2 Use of chemicals received from lessees

In DDCA, Joda, it was found that during FY 2016-17, some stock of required chemicals, *viz*. hydrochloric acid (2.5 litres), mercuric chloride (250 gram), orthophosphoric acid (10 x 5 litres), had been received from a lessee and had been used for analysis of iron ore samples of the same lessee. This was improper and constituted a conflict of interest.

Accepting the audit observation, in reply, the Government stated (September 2023) that, only one case in last five years, some chemicals which were not available at that time in the local market, has been brought from the lessee to maintain the analytical process of iron samples and this process has not been repeated again.

### 6.2.3 Shortage of technical staff related to analysis of samples

It was noticed that there were vacancies, extending up to 100 *per cent*, in respect of different technical posts, such as Analytical Chemist, Assistant Chemist, Junior Chemist, Lab Technician, Sampling Supervisor and Sampler, required for analysis of samples, in the Government Laboratories at Joda and Jajpur, as detailed in **Table 6.3.**

**Table 6.3: Shortage of staff in Government Laboratories, during FYs 2015-16 to 2021-22**

| Financial Year | Post | Government Laboratory, Joda | | | | Government Laboratory, Jajpur Road | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Sanctioned strength | Persons in position | Shortage | Percentage of shortage | Sanctioned strength | Persons in position | Shortage | Percentage of shortage |
| 2015-16 | Analytical Chemist | 1 | 1 | 0 | 0 | 1 | 0 | 1 | **100** |
| | Asst. Chemist | 3 | 1 | 2 | 67 | 7 | 2 | 5 | 71 |
| | Sr. Lab Assistant | 4 | 2 | 2 | 50 | 3 | 3 | 0 | 0 |
| | Sampler | 8 | 3 | 5 | 63 | 3 | 2 | 1 | 33 |
| 2016-17 | Analytical Chemist | 1 | 1 | 0 | 0 | 1 | 0 | 1 | **100** |
| | Asst. Chemist | 3 | 1 | 2 | 67 | 7 | 2 | 5 | 71 |
| | Sr. Lab Assistant | 4 | 2 | 2 | 50 | 3 | 2 | 1 | 33 |
| | Sampler | 8 | 3 | 5 | 63 | 3 | 2 | 1 | 33 |
| 2017-18 | Analytical Chemist | 1 | 1 | 0 | 0 | 1 | 0 | 1 | **100** |
| | Asst. Chemist | 3 | 1 | 2 | 67 | 7 | 2 | 5 | 71 |
| | Sr. Lab Assistant | 4 | 2 | 2 | 50 | 3 | 2 | 1 | 33 |
| | Sampler | 8 | 3 | 5 | 63 | 3 | 2 | 1 | 33 |
| 2018-19 | Analytical Chemist | 1 | 1 | 0 | 0 | 2 | 1 | 1 | **50** |
| | Asst. Chemist | 3 | 1 | 2 | 67 | 4 | 0 | 4 | 100 |
| | Sr. Lab Assistant | 4 | 2 | 2 | 50 | 2 | 2 | 0 | 0 |

| Financial Year | Post | Government Laboratory, Joda | | | | Government Laboratory, Jajpur Road | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Sanctioned strength | Persons in position | Shortage | Percentage of shortage | Sanctioned strength | Persons in position | Shortage | Percentage of shortage |
| | Sampler | 8 | 3 | 5 | 63 | 3 | 1 | 2 | 67 |
| 2019-20 | Analytical Chemist | 1 | 1 | 0 | 0 | 2 | 1 | 1 | **50** |
| | Asst. Chemist | 3 | 1 | 2 | 67 | 4 | 0 | 4 | 100 |
| | Sr. Lab Assistant | 4 | 2 | 2 | 50 | 0 | 0 | 0 | 0 |
| | Sampler | 8 | 3 | 5 | 63 | 2 | 2 | 0 | 0 |
| 2020-21 | Analytical Chemist | 3 | 0 | 3 | **100** | 2 | 1 | 1 | **50** |
| | Asst. Chemist | 6 | 0 | 6 | 100 | 4 | 0 | 4 | 100 |
| | Sampler | 7 | 2 | 5 | 71 | 3 | 1 | 2 | 67 |
| 2021-22 | Analytical Chemist | 3 | 0 | 3 | **100** | 2 | 0 | 2 | **100** |
| | Asst. Chemist | 6 | 1 | 5 | 83 | 4 | 1 | 3 | 75 |
| | Sr. Lab Assistant | 4 | 2 | 2 | 50 | 0 | 0 | 0 | 0 |
| | Sampler | 7 | 2 | 5 | 71 | 2 | 1 | 1 | 50 |
| | Jr. Chemist | 3 | 1 | 2 | 67 | 2 | 1 | 1 | 50 |

***Source: Compiled from the records of DDCA Jajpur Road and Joda.***

Analytical Chemist is required to check 10 *per cent* of the analysed samples of the Assistant Chemists and Senior Laboratory Assistants of the office. However, there was no Analytical Chemist in Joda Laboratory for two years during the years 2020-22. Similarly, in Jajpur Road laboratory, shortage of the Analytical Chemist during the years 2015-16, 2016-17, 2017-18 2019-20 and 2021-22 was 100 *per cent*.

Assistant Chemist is assigned with the duties of analysis of Ores and Minerals as per IBM guidelines. In Joda Laboratory, the analysis of minerals, was carried out for five years, during 2015-20, by one out of three sanctioned posts of Assistant Chemist and there was no Assistant Chemist in 2020-21. Similarly, in Jajpur Road Laboratory, there was shortage ranging up to 71 *per cent* during 2015-18 and functioning without any Assistant Chemist for three years *i.e.* 2018-21.

Junior Chemist is responsible for preparation of Solutions, assisting the Assistant Chemists in day to day analysis work. It was noticed that during 2021-22, the shortage of Junior Chemist in Joda and Jajpur Road laboratories was 67 and 50 *per cent* respectively.

It is evident that such large vacancies would have adversely impacted the performance and reliability of these laboratories, in the analysis of samples.

Accepting the audit observation, in reply, the Government stated (September 2023) that, the existing laboratory personnel are working overtime to clear the sampling and analysis as this is essential to collect Government revenue in time. Even in many cases the technical staff worked in the laboratory till late hours to avoid the pendency. Simultaneously, correspondence has been regularly being made with the higher authorities to resolve the situations.

### 6.2.4 Discrepancies between the analysis reports of Government laboratories

Rule 10 (7) of OMPTS Rules, 2007 effective prior to 16 April 2021[65], laid down that, in case the Senior Inspector of Mines (SIM) felt that the grade of stacked mineral was different from the grade mentioned in the analysis report, the SIM would draw joint samples from the said stacks, in the presence of the lessee or his authorized representative. The sample, so collected, would be prepared and divided into three parts and sealed with the joint signatures of the lessee or his authorized representative. The first part would be sent to the government laboratory for analysis, the second part would be handed over to the lessee, and the third part would be deposited with the Mining Officer/ DDM, as the umpire sample, to be used for final analysis in the government laboratory, in case the report from the first part of the sample was challenged by lessee. Further, the analysis results from the government laboratory would be considered as final.

Scrutiny of records, relating to analysis of the grade of minerals, revealed the following:–

i. In Deputy Director (Chemical Analysis) (DDCA), Jajpur Road, the results of 107 samples[66] of chromite, analysed by the DDCA, during November 2020 to September 2021, had been challenged by the lessee[67] of two mines. The umpire samples had been sent for analysis to the Joint Director (Chemical Analysis) Research Laboratory (JDCA), Bhubaneswar. Cross-checking of the umpire sample analysis reports, issued by JDCA, Bhubaneswar, with the first analysis reports issued by DDCA Jajpur Road, revealed that, in all 107 cases, there had been discrepancies (both upwards and downwards), ranging from (-) 18.74 *per cent* $Cr_2O_3$ to (+) 12.44 *per cent* $Cr_2O_3$, between the mineral content shown by the two government laboratory reports. There was not even a single case, across the 107 challanged samples, where the results of both government laboratories had matched.

ii. In DDCA, Joda, the results of 80 samples[68] of iron-ore, of two lessees[69], analysed by the DDCA, during September 2020 to March 2021, had been challenged by the lessees. The umpire samples had been analysed, by DDCA, Joda, in December 2021. Cross-checking of the umpire sample analysis reports, with the first analysis reports, revealed that, in all 80 cases, there had been discrepancies (both upwards and downwards), ranging from (-) 5.52 *per cent* Fe to (+) 06.02 *per cent* Fe between the mineral content shown by the two government laboratory reports. There was not even a single case

[65] Odisha Minerals (Prevention of Theft and Smuggling) Rules 2007 were amended w.e.f. 16 April 2021

[66] Out of 7,508 samples (1.43 *per cent*) relating to 2020-22

[67] M/s Tata Steel Mining Limited (TSML) of Sukinda and M/s Saruabil Chromite Mines

[68] Out of 4,976 samples (*0.16 per cent*) relating to 2020-21

[69] M/s Kashvi International of Jaribahal Iron ores and M/s Tarini Minerals of Deojhar Iron ore Mines

where the results of the two sets of samples, tested in the same government laboratory, had matched.

The above findings raised serious questions on the accuracy and reliability of the analysis reports being issued by the government laboratories. As the results of analysis of the initial and umpire samples were different in all cases, this indicated lack of robustness in the system of testing and analysis of samples.

Accepting the audit observation, in reply, the Government stated (September 2023) that, the accuracy and reliability of analysis report of the sample packets issued to the analyst has been properly maintained but since the homogeneity of different packets has not been maintained during the drawal process which reflects the difference in analysis reports. Recently, there has been a proposal to introduce robotic labs to minimize human interaction, thus reducing the level of erroneous analysis.

## 6.3 Issuance of Transit Pass (e-Pass)

As per Rule 10(A) of OMPTS (Amended) Rules, 2015, every mineral carrying vehicle (MCV) requires a transit pass, for removal of mineral from lease area. The i3MS portal generates an e-Pass for every MCV. Every e-Pass is uniquely bar-coded and contains specific details of the MCV concerned. The e-pass is to be scanned and verified at check gates, railway sidings *etc*. An e-Pass can be printed, only by the lessee/ licensee[70] who has been issued an e-permit for the total quantity of stacked mineral, proposed to be despatched from the mining lease area, which is regulated in i3MS module on the basis of individual login ID and password.

As per amended Rule 45 of the Mineral Conservation & Development Rules (MCDR), all State Governments have to register mineral carrying vehicles. The Directorate of Mines is required to facilitate online registration of truck owners and their vehicles, for electronic verification with the Transport department database, to check whether the concerned road permits, details of payment of road tax and fitness validity, are available or not.

Audit conducted scrutiny of i3MS data, for four circles[71], for the financial years 2015-22, in regard to the issuance of e-Passes. Findings are discussed below.

### *i. Issuance of e-Passes to mineral carrying vehicles not registered on i3MS*

During 2015-22, a total of 4,78,38,521 e-passes had been generated by lessees/ licensees, under the four mining circles. It was, however, observed that 37,958 e-passes had been generated for MCVs not registered on the i3MS portal, as detailed in **Table 6.4**.

[70] Lessees: Lease holder of the mine Licensees: Licensed by DoM for trading, transporting and storing of mined minerals

[71] DDM, Joda, DDM, Koira, DDM, Jajpur Road; and DDM, Talcher

**Table 6.4: E-passes generated by lessees/ licensees, for vehicles not registered on i3MS, during 2015-22**

| Financial Year | No. of Passes Generated by Lessee/ licensees | | Total |
|---|---|---|---|
| | Registered Vehicle | Unregistered Vehicle | |
| 2015-16 | 28,07,867 | 13,102 | 28,20,969 |
| 2016-17 | 81,30,999 | 4,961 | 81,35,960 |
| 2017-18 | 80,88,613 | 6,645 | 80,95,258 |
| 2018-19 | 77,42,523 | 3,362 | 77,45,885 |
| 2019-20 | 82,77,356 | 2,260 | 82,79,616 |
| 2020-21 | 65,83,114 | 1,369 | 65,84,483 |
| 2021-22 | 61,70,091 | 6,259 | 61,76,350 |
| **Total** | **4,78,00,563** | **37,958** | **4,78,38,521** |

***Source: Information obtained from the i3MS portal***

This indicated a lack of validation controls, in the i3MS software, for ensuring that e-passes were issued only for vehicles registered on i3MS.

Transportation of minerals through unregistered vehicles may facilitate the illegal transportation of unaccounted/ stolen/ unauthorisedly mined minerals, as the origin and destination of such minerals cannot be tracked through i3MS tracking module.

In reply, the Government stated (September 2023) that, the DDM, Jajpur Road has reported that he has imposed penalty amount of ₹3.40 lakh against the 27 erring licensees who have used un-registered vehicle in i3MS portal for transportation of minerals. Out of 27, 26 licensees have deposited the penalty amount of ₹3.15 lakh.

### *ii. Issuance of e-Passes to non - mineral carrying vehicles*

Out of the 37,958 e-passes generated for the vehicles not registered on i3MS, Audit cross-checked the vehicle details in regard to 23,266 e-Passes, generated by the licensees, with the VAHAN database of the Transport department. It was noticed, in this regard, that 3,697 (16 *per cent*) e-passes were for vehicles that had been registered on the three-wheelers *etc*., which could not be mineral carrying vehicles. Details in this regard are shown in **Table 6.5.**

**Table 6.5: Vehicles other than MCVs, for which e-Passes had been issued during 2015-22**

| Mineral | No. of e-Passes generated by licensees, for unregistered vehicles | No. of e-passes where vehicles found to be other than MCVs | Quantity of minerals shown having been transported on vehicles other than MCVs (in MT) |
|---|---|---|---|
| Coal | 17,048 | 2,915 | 53,828.25 |
| Dolomite | 486 | 200 | 4,449.11 |
| Gypsum | 62 | 13 | 284.50 |
| Limestone | 935 | 102 | 1,839.48 |

| Mineral | No. of e-Passes generated by licensees, for unregistered vehicles | No. of e-passes where vehicles found to be other than MCVs | Quantity of minerals shown having been transported on vehicles other than MCVs (in MT) |
|---|---|---|---|
| Pyroxenite | 172 | 112 | 1,130.10 |
| Quartzite | 1,538 | 67 | 1,499.66 |
| Bentonite | 49 | 16 | 255.66 |
| Chromite | 224 | 10 | 228.10 |
| Bauxite | 940 | 11 | 239.08 |
| Magnesite | 397 | 7 | 137.79 |
| Manganese | 2 | 2 | 36.21 |
| Iron Ore | 1,371 | 242 | 3,343.88 |
| Dunite | 42 | 0 | 0.00 |
| **Total** | **23,266** | **3,697** | **67,271.82** |

***Source: Information obtained from the i3MS portal and VAHAN database***

As actual transportation of minerals, weighing 67,271.82 MT, using motorcycles/ cars/ three-wheelers, was not practicable, this indicated either incorrect entries or deliberate falsification of vehicle numbers, at the time of generation of e-Passes. The matter merits investigation, in order to establish the underlying causes and take remedial measures.

In reply, the Government stated (September 2023) that, the DDM, Koira has issued show cause notice to concerned licensees for engaging un-registered vehicles for transport of minerals during financial year 2015-16 to 2019-20. Further, only i3MS registered vehicles are being engaged for transportation of minerals.

However, the fact remains that there were instances of issue of e-passes to the unregistered vehicles of four circles and the compliance is furnished only on two circles. Moreover, Audit pointed out 37,958 unregistered vehicles for carrying minerals, whereas Government had taken action against 27 licences only. This clearly indicate lack of monitoring of unregistered vehicles for carrying minerals and possibility of illegal transportation of unaccounted/ stolen minerals cannot be ruled out.

## 6.4 Functioning of check gates/ weighbridges

Under Section 11 of the OMPTS Rules, 2007, check posts, barriers and weighbridges, are established to check transport and storage, of minerals raised with lawful authority, as also to check the quality and quantity of minerals transported from leasehold areas. All MCVs will normally pass through checkpost/(s) or checkpost-cum-weighbridge/(s) of the department, or other weighbridge/(s) installed in leasehold areas, plants or factory premises, approved by the Director of Mines. Government is to engage checking staff to supervise such weighments.

The lessees/ licensees are required to print the transit passes/ permits, generated through the i3MS software, which are, then, to be carried by all

MCVs. All MCVs are required to carry two copies of the transit passes/ permits, and stop at the check-posts/ weighbridges where the quantity and quality of the minerals is to be verified by Government checking staff. MCVs can proceed only after being cleared at the check-posts. At the check-gates/ weighbridges, the barcodes on these e-passes are to be scanned by the Government checking staff, using barcode scanners and also to be validated online, through the i3MS central server.

As per the business process of check gate automation in the solution architecture of the i3MS, each check-gate is required to have a weighbridge, computer, printer and internet connectivity (to access the i3MS central server), as well as two computer operators, for e-pass verification.

Analysis of records and data on check gates, in the i3MS portal, for 2017-22, and joint physical verification (by Audit, with officers in-charge of check gates), in respect of four check gates, under the Joda circle[72] and six check gates under the Koira circle[73], revealed the following:

### *i. Missing MCVs*

Data from the i3MS software showed that a total of 1,18,44,864 e-passes had been generated, for MCVs routing through these 10 check gates. However, it was found that only 1,01,65,644 MCVs had actually been recorded as "checked" at these check gates. There was no record for the remaining 16,79,220 e-passes for MCVs (14 *per cent*) and there were risks that: (i) these MCVs had been routed through different routes, bypassing the check gates (ii) allowed to pass through the designated check-gates without any checking/ verification or (iii) had been physically checked but not recorded on the i3MS software, due to system issues *etc*. Details in this regard are shown in **Table 6.6**.

**Table 6.6: MCVs routed through the test-checked check gates, during FY 2017-18 to 2021-22**

| Financial Year | DDM, Joda Circle | | | DDM, Koira Circle | | |
|---|---|---|---|---|---|---|
| | No. of e-passes for Vehicles | | | | | |
| | Routed | Checked | Not Checked | Routed | Checked | Not Checked |
| 2017-18 | 4,69,569 | 4,69,517 | 52 | 18,47,164 | 15,13,584 | 3,33,580 |
| 2018-19 | 8,79,092 | 8,78,408 | 684 | 16,16,529 | 13,92,462 | 2,24,067 |
| 2019-20 | 10,33,915 | 10,30,596 | 3,319 | 15,75,494 | 13,04,303 | 2,71,191 |
| 2020-21 | 5,72,392 | 5,45,922 | 26,470 | 16,37,802 | 11,56,013 | 4,81,789 |
| 2021-22 | 7,04,868 | 6,91,009 | 13,859 | 15,08,039 | 11,83,830 | 3,24,209 |
| **Total** | **36,59,836** | **36,15,452** | **44,384** | **81,85,028** | **65,50,192** | **16,34,836** |

*Source:* ***Information obtained from the i3MS portal***

Non-checking of 16,79,220 e-passes generated for MCVs resulted in absence of end to end tracking of transportation of a minimum of 1.48

[72] Joda Circle – Gandarpada, Lahanda, Nayagarh and Nalda
[73] Koira Circle – Barsuan, Jamdihi, Koleiposh, Kolmong, Langaleswar and Malda

crore MT of iron ore (by taking into account 8.83 MT per MCV, the minimum quantity of minerals carried by the test checked MCVs during the audit period) valuing atleast ₹ 1,473.26 crore (calculated by taking the average ASP of five years in respect of lowest grade of iron-ore i.e. below 55% fines). In the absence of end to end tracking of these e passes, the risk of excess extraction and transportation of minerals in violation of existing regulatory framework could not be completely ruled out.

### *ii. Short-deployment of staff at check-gates*

Joint physical inspections (JPIs) of ten check gates under the Joda and Koira circles were conducted by Audit along with officials of department during September 2022.

JPI of the check-gates revealed that adequate staff had not been deployed for checking of MCVs.

a. As per solution architecture of i3MS there is provision of posting of two computer operators at each checkgates. However, in JPI, it was observed that in each of the four checkgates of the Joda circle, only one regular check gate clerk had been posted. Moreover, other support staff were deputed by OMC, a State PSU and a lessee.

b. Out of the six check gates of the Koira circle, in two check gates (Jamdihi and Koleiposh) neither check gate clerk nor computer operator were posted. Two staff from OMC had been posted, at each check gate.

As check gates are operational for all 24 hours each day, a minimum of three persons are required to be deployed, on rotation basis (8-hour shifts), at each check gate. It is evident that 24X7 checking was not possible by staff posted at these check gates, which implied that, for some periods (particularly during the night), the check gates would have remained closed, causing MCVs to either wait for long hours until they reopened, or to pass through without checking.

In this regard, it is pertinent to mention that the shortage of manpower had been highlighted in Para No. 6.2.13.1 of the Report (No.4 of 2014) of the Comptroller and Auditor General of India, on Government of Odisha, for the year ended March 2013. However, the issue still remained unaddressed, even after nine years.

### *iii. Lack of internet connectivity at the check-gates*

JPI of the above ten check-gates revealed that, two check gates[74] of the Joda circle and two check gates[75] of the Koira circle, had been operating without internet connectivity. Due to non-availability of internet facility in these four check gates, checking and updating of e-passes/ permits, in the i3MS software, could not be done. During 2017-22, a total of 62,14,409 e-

[74] Nalda and Nayagarh
[75] Barsuan and Jamdihi

passes for MCVs had been routed through these four check gates, for which the transit passes could only be physically checked at the check-gates, without any cross-verification/ validation on i3MS.

***iv. Non-availability of barcode scanners***

In six out of the ten test-checked check gates, *viz*. two check gates[76] of the Joda circle and four check gates[77] of the Koira circle, barcode scanners had not been provided. Due to non-availability of barcode scanners, 63,10,355 e-pass transit permits for MCVs could not be scanned and automatically verified on the i3MS software, and instead only physical checking of the e-pass could be done by the check-gate staff.

***v. Non-installation of weighbridges***

Out of the 10 cross-checked check gates, four check gates of the Koira circle (Barsuan, Jamdihi, Kolmong and Malda) had been functioning without any weighbridges. Due to non-availability of weighbridges at the check gates, the actual weights of the minerals transported, as per the transit passes, were not being cross-checked, and only the validity of the passes and vehicle numbers were being verified on i3MS, after which the MCVs were being designated as "checked". In such a scenario, transportation of excess quantities of minerals could not be ruled out.

***vi. Non-working of weighbridge***

In one check gate (Lahanda) of the Joda Circle, the weighbridge of the check-gate had not been in working condition from February 2020 to June 2022, due to which the actual weight of the minerals transported could not be verified. However, i3MS data showed that 3,44,589 e-passes for MCVs had been "checked" during this breakdown period. This established that the i3MS software had been designating MCVs as "checked", as soon as the barcode was scanned, without capture and cross-verification of the actual weight of minerals transported against the weights shown in the e-passes.

***vii. Non-accessibility to weighbridges***

The approach roads, to the weighbridges of two check gates[78] were not in a motorable condition. Due to this, MCVs were unable to access the weighbridge for weighment. The MCVs were being passed at the check gates only on the basis of verification of the validity of the passes and vehicle numbers on i3MS, without verification of the weights of the minerals recorded in the transit permits.

[76] Gandarpada and Lahanda
[77] Barsuan, Jamdihi, Kolmong and Malda
[78] Lahanda checkgate in the Joda Circle and Jamdihi checkgate in the Koira Circle

**Photograph No. 1: Non availability of approach road at Lahanda Checkgate**

**Photograph No. 2: Non availability of approach road at Jamdihi Checkgate**

Further, the MCVs had to perforce stand on the main roads / national highways, causing congestion around the check-gate area.

In reply, the Government stated (September 2023) that, during the financial year 2022-23, the Department has converted the existing weighbridges like Lahanda, Gandalpada and Nayagarh under Joda mining circle as unmanned weighbridges. The weighbridges were equipped with boom barrier, traffic lights, camera, displays, RFID readers *etc*. The weighbridge is fully automatic, and no manpower will be required. Currently the same is managed using handheld Barcode scanner. The Department is planning to mandate the FASTag in all the MCVs in the State, as they are plying on the National Highways. The Government has already decided to establish existing weighbridges and upcoming weighbridges in Koira, Jajpur and Keonjhar mining circle during the financial year 2023-24 and 2024-25. After establishment of same, the weighbridges would be independent without human interference.

The Government reply is silent about the deficiencies at check gates/ weighbridges pointed out by Audit. The Government reply is also futuristic assurance and subject to actual implementation.

## 6.5 Inspections

### 6.5.1 Inadequate number of raids by the State Level Enforcement Squad

The State Level Enforcement Squad (SLES), comprising personnel from the Police, Forest and Mining Departments, was constituted (May 2007), by the State Government, for the purpose of checking illegal mining activities. As per the instructions (April 2011) of the S&M Department, each team of SLES was required to inspect/ raid 30 to 35 lessees and licensees, per month. The squad was also required to check transportation of minerals en-route, as well as to conduct raids on free-hold areas (areas for which mining lease had not been granted) that were prone to illegal mining activities. The squad was not to be

kept idle at headquarters and the summary of the activities of SLES was to be submitted, on a monthly basis, to the S&M Department.

Scrutiny of records of raids/ inspections, conducted by the three SLES teams, for 2015-22, revealed the following –

***i.*** Only 265 inspections/ raids had been conducted during 2015-22, by these three teams, against the target of 2,520 to 2,940 inspections/ raids. Thus, these achievement was only 9.01 to 10.52 *per cent* of the prescribed target.

***ii.*** Monthly reports, containing summaries of the activities of the SLES, were clubbed into 52 reports and submitted with delays ranging up to 188 days after the scheduled dates. In four cases, consolidated reports for multiple months had been submitted, instead of monthly reports.

***iii.*** Only 125 raids had been conducted on free-hold areas[79], during the period 2015-22, and no such raids had been conducted during FY 2021-22.

***iv.*** Over the 84-month period during 2015-22, in violation of Government instructions, the SLES teams were kept idle at headquarters, without any raids having been conducted, for periods totalling 44 months[80] (52 *per cent* of the total period).

The inadequate raids/ inspections, of lessees, traders and free-hold areas prone to illegal mining *etc*., defeated the purpose of formation of the SLES and indicated that the State Government was not carrying out adequate monitoring, to protect its mineral resources from unauthorised activity.

In reply, the Government stated (September 2023) that no target is fixed by Government for SLES Team, so, SLES Team moves as and when there is some allegation/ complaint or any irregularities noticed in mining activities. There were three SLES Teams. In addition to the field visits for inspection, the SLES team members are to perform additional duties, also. Visit to a mine and verifying the field activities and books of account took longer time as the locations are far from headquarters and due to voluminous books of account and records. The number of inspections/raids might appear to be less in number, but maintaining the qualitative aspect of the raid was the main objective due to which large sum of penalty amount was collected and as a long term result of this verification this Department was able to achieve a record amount of revenue during 2021-22. For intensive SLES activities,

[79] Mineral Bearing Areas not leased out

[80] Team I - May, November and December 2016, April 2020 to May 2021, August 2021, Oct 2021 to March 2022 Team II - October, November 2017, October 2018, January and March 2020, April 2020 to May 2020, July 2020 to August 2020, Dec 2020 to Feb 2021, May 2021 to June 2021, Aug 2021 to Dec 2021, Feb 2021 to March 2021 Team III - October, November 2017, January, May, June, September 2018, December 2019, January, February and March 2020, April 2021 to July 2021, September 2021, January 2021 to Dec 2022, Feb 2022 to March 2022

steps are being taken for recruitment of more staff. Further, during Covid period, the SLES team could not move to mines area to conduct raid.

The reply is not acceptable, as the teams had been sitting idle for 44 months, *i.e.* 52 *per cent* of the total period of 84 months, at headquarters, in contravention of Government instructions. Therefore, the objective behind constitution of the SLES, to check illegal mining activities was not achieved.

### 6.5.2 Inadequate inspection of mines

Section 24 (1) of the MMDR Act, 1957, empowers mining authorities to conduct inspection of mines. As per the instructions of DoM (July 1987), DDMs/ MOs are required to inspect all working mines leases at least once in six months, non-working mines leases once in a year, and large mines at least once in each quarter. Inspection reports are required to be submitted to the Directorate by 15$^{th}$ of the month following the month of inspection.

Scrutiny of records, of inspections, in the five test-checked mining circles, revealed that there had been shortfalls in inspection of working and non-working mines, during the period 2015-22, varying from 73.96 to 100 *per cent*, as shown in **Table 6.7.**

**Table 6.7: Shortfall in inspections during 2015-22**

| Circle | Number of | | | *Percentage* of shortfall | Number of | | | *Percentage* of shortfall |
|---|---|---|---|---|---|---|---|---|
| | Working Mines | Inspections | | | Non-working Mines | Inspections | | |
| | | Due | Carried out | | | Due | Carried out | |
| Jajpur Road | 12 | 168 | 11 | 93.45 | 4 | 28 | 0 | 100 |
| Talcher | 12 | 120 | 0 | 100 | 9 | 45 | 0 | 100 |
| Koira | 31 | 434 | 53 | 87.78 | 45 | 315 | 82 | 73.96 |
| Joda | 27 | 378 | 0 | 100 | 40 | 280 | 0 | 100 |
| Berhampur | 16 | 160 | 10 | 93.75 | 22 | 110 | 7 | 93.63 |
| **Total** | **98** | **1,260** | **74** | | **120** | **778** | **89** | |

***Source: Information provided by the DDM offices***

These shortfalls, in the inspection of mines, implied that the department was not carrying out adequate monitoring, to protect its mineral resources from unauthorised activities.

Upon the aforementioned facts being pointed out by Audit, DDM, Koira, stated (September 2022) that periodic inspection of mines was being conducted by the SLES and joint inspection with IBM officials was also being conducted. The fact remained, however, that the *percentage* of inspections, by DDMs/ MOs, in the areas under their direct jurisdictions was very low.

The issue of shortfall in inspections of mines had also been highlighted in Para No. 6.2.13.2 of the Report of the Comptroller and Auditor General of India, on the Government of Odisha, for the year ended March 2013. However, the issue still remained unaddressed, even after the passage of nine years.

Accepting the audit observation, in reply, the Government stated (September 2023) that, as per guidelines, inspection of mines (working and non-working) is being conducted. However, instruction in the audit observation will be followed and copy of inspection report will be kept in the lease files henceforth.

**Recommendations:**

**Government should:**

13. **investigate the cases of unchecked e-passes generated for the MCVs and revamp the existing mechanism to ensure control over unchecked passes for end to end monitoring of movement of mineral resources.**
14. **ensure deployment of adequate personnel at the checkgates, weighbridges and laboratories, as also availability of the required equipment for smooth functioning of the check gates/ weighbridges and Government laboratories.**
15. **ensure carrying out required quantum of inspections/ raids by the SLES, as well as inspection of mines by the DDsM, for adequate monitoring of mining activities and for protecting its mineral resources from unauthorised activities.**

Bhubaneswar
**The 21 July 2024**

**(VISHWANATH SINGH JADON)**
**Accountant General (Audit-II), Odisha**

**Countersigned**

New Delhi
**The 25 July 2024**

**(GIRISH CHANDRA MURMU)**
**Comptroller and Auditor General of India**