

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/PAL-32/L.ST-1

Mine code : 38RAJ21001

- (i) Name of the Inspecting : **K018**) **Dr A Z Khan**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Shri Amit Sharma, Geologist
Official with
Designation
- (iv) Date of Inspection : 24-OCT-24
- (v) Prev.inspection date : 06-AUG-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RAS (803.33 HA)**
- (b) **Registration NO.** : **IBM/447/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : RAJASTHAN
District : PALI
Village : RABRIYAWAS
Taluka : JAITARAN
Post office : DLF RABRIYAWAS
Pin Code : 306709
FAX No. : 02939288030
E-mail : manoj.malvi@ambujacement.co
Phone : 02939-289209,288011,288012
- (f) Police Station : Ras
- (g) First opening date : 10-FEB-96
- (h) Weekly day of rest : SUN
2. Address for : AMBUJA CEMENT LTD.
correspondance P.O:-RABRIYAWAS, TEH :- JAITARAN
DIST:-PALI, RAJASTHAN,306709
3. (a) Lease Number : RAJ1604
- (b) Lease area : 803.33
- (c) Period of lease : 50
- (d) Date of Expiry : 29-DEC-45
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : AMBUJA CEMENT LTD
 VILL.- RABARIYAWAS DIST-
 PALI PALI RAJASTHAN
 Phone:02939-288011-18
 FAX :02939-288030

Owner : AJAY KAPUR
 Elegant Business Park, MIDC
 Cross Road B, Andheri-
 Kurla Road, Andheri- East,
 Mumbai (Maharashtra) MUMBAI
 (SUBURBAN) MAHARASHTRA
 Phone: 022-40667000 /
 FAX :

Agent : Satish Audichya
 M/s Ambuja Cement
 Ltd,Rabriyawas Dist:Pali,
 Rajasthan.306709. PALI
 RAJASTHAN
 Phone: satish.audichya@adani.com
 FAX :

Mining Engineer

Name : Shrikant Gundagi,Full Time
 Qualification :
 Appointment/ : 20-AUG-24
 Termination date

Geologist

Name : Amit Sharma,Full Time
 Qualification : M Sc (Geology)
 Appointment/ : 01-AUG-20
 Termination date

Manager

Name : Mayur Kumar
 Qualification :
 Appointment/ : 06-AUG-24
 Termination date

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| 6. Date of approval of Mining | : | Existing rule 11 MCDR1988 | 27-JUN-97 |
| Plan/Scheme of Mining | | Mining Scheme rule 12 MCDR1988 | 05-SEP-02 |
| | | Modif.approved Mining Scheme | 10-JAN-05 |
| | | Mining Scheme rule 12 MCDR1988 | 21-MAR-06 |
| | | Modif.approved Mining Scheme | 30-MAR-09 |
| | | Mining Scheme rule 12 MCDR1988 | 04-NOV-11 |
| | | Mining Scheme rule 12 MCDR1988 | 30-JUL-15 |
| | | MP modif under 17(3) MCR 2016 | 25-JUL-18 |

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|---|--|---|
| 1a | Backlog of previous year | No proposal of exploration | Not applicable as no proposal. | NA |
| 1b | Exploration over lease area for geological axis 1 or 2 | No proposal of exploration for reporting year i.e. 2023-24. | No exploration work has been carried out during the reporting year. | Area Under G1= 214.59 Ha, Non Mineralized Zone: 588.835 Ha. |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | No proposal of exploration for reporting year. | Not applicable as no proposal. | NA |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | No proposal of exploration for reporting year. | As per approved document entire potentially mineralised area is explored under G1 level of exploration. | NA |
| 1e | Balance reserve as on 01/04/20 | No year wise specific proposal | As on 01/04/2024, the position of reserve and resources are 54.88 and 144.23 million tonnes respectively. | NA |
| 1f | General remarks of inspecting officers on geology, exploration etc | | The limestone deposition in the area is thick bedded and massive. As per the MEMC Rules, 2015, the deposit of Limestone of the area falls under the category of tabular bedded Stratiform deposit of regular habit. The entire mineralized area has been explored to G1 level. | Area Under G1= 214.59 Ha, Non Mineralized Zone: 588.835 Ha. |

Development :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
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|----|--|--|--|--|
| 2a | Location of development w.r.t.lease area | <p>North Hill 6200-6200' 386-370 Pit 1 6600-6600' 418-394 6800-6800' 418-402 North Hill 6000-6000' 402-386 Pit 2 6200-6200' 402-386 Central Hill Pit 5200-5200' 410-400 South Western Pit 1 2800-2800' 378-362 3000-3000' 386-370 3200-3200' 386-378 3400-3400' 386-370 South Western Pit 2 4000-4000' 386-378</p> | <p>North Hill 6200-6200' 386-378 Pit 1 6600-6600' 418-402 6800-6800' 418-388 North Hill 6000-6000' 0 Pit 2 6200-6200' 0 Central Hill Pit 5200-5200' 410-400 South Western Pit 1 2800-2800' 378-362 3000-3000' 386-370 3200-3200' 386-377 3400-3400' 386-375 South Western Pit 2 4000-4000' 386-378</p> | For deviation violation of rule 11(1) of MCDR, 2017 has been pointed out |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | No proposal of top soil benches. Benches have been proposed in mineral zone along with intercalated waste. | Top soil has not been generated during the year. Seperate benches have been formed in mineralised zone along with intercalated waste | NA |
| 2c | Stripping ratio or ore to OB ratio | 1:0.79 | 1:0.59 | NA |
| 2d | Quantity of topsoil generation in m3 | No proposal of top soil generation. | No top soil has been generated during the year 2023-24. | NA |
| 2e | Quantity of overburden generation in m3 | No OB proposal. Proposal of 850676m3 for Interburden given | No OB generation. 335325 m3 Interburden generated. | Less waste generation due to less development & production |

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| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | Five locations has been proposed for development/excavation during reporting year to achieve targeted production of lime stone. The development has not been carried out as per approved proposal for which violation of rule 11(1) of MCDR, 2017 has been pointed out. |
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Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
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| 3a | Number of pit proposed for production | Five pits (North Hill Pit 1, North Hill Pit 2, Central Hill Pit, South Western Pit 1 & South Western Pit 2) have been proposed for production. | The development & excavation has been carried out in four pits (North Hill Pit 1, Central Hill Pit, South Western Pit 1 & South Western Pit 2). has not been carried out as per approved proposal for which violation of rule 11(1) of MCDR, 2017 has been pointed out. | The development & excavation has not been carried out as per approved proposal for which violation of rule 11(1) of MCDR, 2017 has been pointed out. |
| 3b | Quantity of ROM mineral production proposed | 3599800 Tonne | 2039002 Tonne | Less production is in account of low market demand |
| 3c | Recovery of sailable/usable mineral from ROM production | 2879840 Tonne | 1518307 Tonne | Less production is in account of low market demand |
| 3d | Quantity of mineral reject generation | 719960 Tonne | 520695 Tonne | Mineral reject is Screen reject. |
| 3e | Grade of mineral rejects generation and threshold value declared. | Cao<34% | Cao<34% | None |
| 3f | Quantity of sub grade mineral generation. | No proposal of Sub-grade ore generation during the year 2023-24 | No Sub-grade ore has been generated during the year 2023-24 | None |
| 3g | Grade of sub grade mineral generation | No proposal | Not applicable as no proposal of Sub-grade mineral generation | None |

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| 3h | Manual / Mechanised method adopted for segregating from ROM | Mechanized Method i.e. crushing and screening has been proposed to process ROM | Mechanized Method has been adopted to process ROM by Screen & wobbler installed as per proposal. | None |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | No proposal of analysis or beneficiation study | Not applicable as there was no proposal | None |
| 3j | Provision of drilling and blasting in mineral benches | Drilling has been proposed with 115 mm dia drill machine. Blasting has been proposed to carry out adopting control blasting technique. | Drilling and blasting for ore production has been carried out as per proposal. | None |

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| 3k | Provision of mining machineries in mineral benches | Mining Machinery proposed: 1) Back Hoe - 4.50CuM 2) Back Hoe- 3.60 CuM- 3) Dumper - 47.2.00Ton 4)Dozer - 303.00HP 5)Front End Loader-3.10CuM 6)Tipper-8.00CUM 7) Motor Grader - 195.00HP 8)Rock Drill(Non Elect)- 115.00MM 9)Road Roller-11.70Ton 10) Crusher-1200.00T/H 11)Water Tanker-14000LT 12)Water Tanker-20000LT 13)Explosive Van- 2.97Tonne 14)Explosive Van- 4.225Tonne | Mining Machinery Used: 1) Back Hoe - 4.50CuM 2) Back Hoe- 3.60 CuM- 3) Dumper - 47.2.00Ton 4)Dozer - 303.00HP 5)Front End Loader- 3.10CuM 6)Tipper-8.00CUM 7) Motor Grader - 195.00HP 8)Rock Drill(Non Elect)- 115.00MM 9)Road Roller-11.70Ton 10) Crusher-1200.00T/H 11)Water Tanker-14000LT 12)Water Tanker-20000LT 13)Explosive Van- 2.97Tonne 14)Explosive Van- 4.225Tonne | None |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | No proposal for OB. Height of the benches in mineral have been proposed to 8 mts | There is no OB. In general the height of the benches in mineral have been kept to 8 mts. | None |
| 3m | Total area covered under excavation/pits | 170.12 Ha | 163.37 ha | None |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1:0.79 | 1:0.59 | No OB. Interburden waste found. |
| 3o | Total area put in use under different heads at the end of year | 304.55 ha | 299.56 ha | None |

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| 3p | Production of ROM mineral during the last five year period as applicable | 2023-2024: 3.59 Mio tons 2022-2023:2.87 Mio tons 2021-2022:3.60 Mio tons 2020-2021:3.60 Mio tons 2019-20:3.33 Mio tons | 2023-2024: ~2.04Mio t 2022-2023:~1.95 Mio t 2021-2022:~2.54 Mio t 2020-2021:~2.92 Mio t 2019-20: ~1.88 Mio t | None |
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| 3q | General remarks of inspecting officers on method of mining etc. | The limestone deposition in the area is thick bedded and massive. As per the MEMC Rules, 2015, the deposit of Limestone of the area falls under the category of tabular bedded Stratiform deposit of regular habit. Open cast method of mining by using HEMM with deephole drilling & blasting has been adopted which is suitable for the deposit. |
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Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---|--|---------|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | No proposal of top soil and OB. Mineral Reject generation. Interbedded waste is proposed to dump separately | Top soil and OB has not been generated. Mineral Reject(Screen Reject) & Waste in the form of Interburden generated during the year has been dumped separately. | None |

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| 4b | Location of topsoil, OB and mineral reject dumps | No proposal for Top Soil & OB. Waste proposed at: W1 Lat 26:17:32.10 to 26:17:44.55 & 26:17:38.01 to 26:17:43.21 Log. 74:07:55.66 74:08:07.48 & 74:08:02.60 to 74:08:08.12 W2 Lat. 26:17:00.42 to 26:17:08.25 Log. 74:07:25.43 to 74:07:32.35 SW2 Lat. 26:17:34.59 to 26:17:42.63 Log. 74:08:33.49 to 74:08:40.52 W1 | Waste dumping has been carried out as per approved locations. | None |
| 4c | Number of dumps within lease area and outside of lease area | Total 9 existing dumps within ML area. No dump exist outside ML area. | Within lease: 09 Out side lease: 0 | None |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | All dumps area outside UPL | Dumps observed outside UPL | None |
| 4e | Number of active and alive dumps. | 09 dumps | In Mines total 09 active dumps are there. | None |
| 4f | Number of dead dumps. | No proposal | There is no dead dump. | None |
| 4g | Number of dumps established. | No proposal to established waste dumps. | Not applicable as there was no proposal. | None |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Retaining wall and Garland drain has been proposed along the toe dumps | Retaining wall & Garland drain has been constructed at many place around dumps | None |
| 4i | Length of Retaining wall or garland drain all along dumps | 100 meter | 100 meter | None |

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| 4j | Number of settling ponds | No proposal of settling pond. | Not applicable as no proposal. | None |
| 4k | Specific comments of inspecting officer on waste dump management | Dumping of the waste has been proposed in extension of existing waste dumps. Retaining wall and garland drain has been proposed along toe of waste dumps. | Dumping of the waste is being carried out as per approved proposal. Retaining wall & Garland raing has been observed at places along the dump. | None |

Solid Waste Management - Backfilling:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|---|---|
| 5a | Status of part or full extraction of mineral from mined out area before starting backfilling. | Proposal is given for backfilling of mined out pit | Back filling of mined out pit has been carried out dutring the year 2023-24 | None |
| 5b | Area under backfilling of mined out area | Proposed to backfill 1.60 hect. during the year 2023-24 | During the year 2023-24, back filling of 4.68 ha. area has been carried out | Extra area backfilled was the backlog of the previous years |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | No proposal for concurrence use of Top soil. | No top soil generation during the year 2023-24 | None |
| 5d | Total area fully reclaimed and rehabilitated | Proposed to reclaim mined out pit by backfilling of 1.60 ha area | During the year 2023-24, a total 4.68 ha area backfilled | None |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | | Back filling of the mined out pit has been carried out as per approved proposal | |

Progressive Mine Clousre Plan:

| Sl.No. | Item | Propasals | Actual work | Remarks |
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| 6a | Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2). | As per rule 26 of MCDR, 2017 holder of mining lease shall submit PMCP before 1st day of July every year. | PMCP report for the year 2023-24 has been submitted | None |
| 6b | Area available for rehabilitation (ha) . | An area of 1.0 Hectare of waste land has been proposed for rehabilitation by plantation | An area of 1.55 Hectare of waste land has been rehabilitated by plantation | None |
| 6c | afforestation done (ha). | An area of 1.0 Hectare of waste land has been proposed for rehabilitation by planting 1000 saplings | An area of 1.55 Hectare of waste land has been rehabilitated by planting 2150 saplings | None |
| 6d | No. of saplings planted during the year | 1000 saplings | 2150 saplings | None |
| 6e | Cumulative no .of plants | 56900 plants | 58050 plants | None |
| 6f | Any other method of rehabilitation | No other proposal of any other method of rehabilitation | Except plantation, no any other method of rehabilitation adopted | None |
| 6g | Cost incurred on watch and care during the year | Rs. 1.20 lakhs | Rs. 2.89 lakhs | None |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | 780x25x8 meter | 750 X 60 X 8 meter | None |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | 750x28x8 meter | 750x60x8 meter | None |

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|----|---|--|--|------|
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area | No proposal of afforestation on backfilled area | Not applicable as there was no proposal. | None |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | No proposal for water reservoir | Not applicable as there was no proposal. | None |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | No any other specific proposal. | Not applicable as no proposal. | None |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | An area of 1.0 Hectare of waste land has been proposed for afforestation by planting 1000 saplings | An area of around 1.55 hectare of waste land has been afforested by planting 2150 saplings | None |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | An area of 1.0 Hectare of waste land has been proposed for afforestation by planting 1000 saplings | An area of around 1.55 hectare of waste land has been afforested by planting 2150 saplings | None |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | Plantation | Plantation | None |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Proposal of environment monitoring has been given in the Core and Buffer zone | Environment monitoring has been carried out in the Core and Buffer zone | None |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | | Plantation & backfilling of minedout pit has been carried out within lease area to improve the aesthetic beauty in and around lease area. The PMCP compliance is satisfactory. | None |

 Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--|---|---------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | No specific grade wise sorting has been proposed. Entire ROM has been proposed to crush and screen | Crushing and screening of ROM has been observed. | None |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | Crushing and screening by mechanical means. | Crushing and screening by mechanical means has been observed | None |
| 7c | Different grade of mineral sorted out at mines. | No specific grade wise sorting has been proposed. Entire ROM has been proposed to crush and screen | No specific grade wise sorting has been carried out. Only Crushing and screening of ROM has been observed. | None |
| 7d | Any beneficiation process at mines . | No proposal of any beneficiation process. | Not applicable as there was no proposal of beneficiation | None |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | | Entire ROM is proposed to use in cement plant after crushing and screening. No issues related to Mineral Conservation observed. | |

 Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|--|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | No proposal of top soil generation during 2023-24. | No top soil has been generated during the year 2023-24 | None |
| 8b | Concurrent use or storage of topsoil | No proposal | Not applicable as there was no proposal. | None |

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| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Separate dumping of waste/IB & Screen reject has been proposed. | Waste material has been dumped at its designated place. | None |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Proposed to filled mined out pit | Waste has been used to fill mined out pit | None |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | An area of 1.0 Hectare of waste land has been proposed for afforestation by planting 1000 sapling & rehabilitation of 1.66 ha mined out pit by backfilling | An area of 1.55 Hectare of waste land has been afforestation by planting 2150 sapling & rehabilitation of 4.68 ha mined out pit has been backfilled | None |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | Proposed Cumulative no. of plantation 56900 | The cumulative no. of plantation is 58050 | None |
| 8g | Survival rate | 70% | 85% | None |
| 8h | Water sprinkling on roads to control airborne dust | To control the air born dust particle, water sprinkling has been proposed | Water sprinkling has been observed during the mine inspection. | None |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | | The aesthetic beauty in and around the mine is satisfactory. | |

Compliance of Rule 45:

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
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| 9a | Status of submission of Monthly and Annual returns | As per rule 45 of MCDR, 2017, holder of mining lease should submitted Monthly and Annual return in prescribed format | Monthly and Annual return of the year 2023-24 has been submitted | None |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Information of Mining Engineer, Geologist and Manager has been furnished. | Mining Engineer, Geologist and Mine Manager as per MCDR, 2017 has been appointed at the mine. | None |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Used for waste disposal- 114.53 Ha, Covered under o/c working: 167.080 Ha. reclaimed and rehabilitated- 4.68, Occupied by plant, building, workshop, roads, plantation- 11.050 Ha, Other-24.420 Ha, | The details of land use furnished in AR for the year 2023-24 appear to be correct. | None |
| 9d | Scrutiny of Annual return on afforestation | Information of plantation of 2150 sapling within lease area has been furnished. | The details afforestation furnished in AR appear to be correct. | None |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | A quantity of 682455 m3 of waste & screen reject has been furnished under Overburden Waste | Quantity at the beginning of the year & Total at the end of the year not furnished for which violation of rule 45(7) of MCDR, 2017 has been pointed out | None |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | Under Part-VI(2) In place of ROM, the quantity of Saleable Mineral/usable mineral is given | Information is not correct for which violation of rule 45(7) of MCDR, 2017 has been pointed out | None |

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| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Ex mine price- Rs. 262.86 per tonne, Production cost per tonne- Rs. 262.86 per tonne. Sale value- NIL as mineral is used for captive consumption. | The information furnished appears to be correct. | None |
| 9h | Scrutiny of Annual return on fixed assets | The value of fixed asset furnished is Rs. 100073868.00 | The information furnished appears to be correct. | None |
| 9k | Scrutiny of Annual return on mining machineries | Back Hoe, Dozer, Front end loader, Dumper, tripper, Water Tanker, Rock drill, Crusher, Road Roller etc. | The information furnished in respect of mining machineries appears to be correct. | None |

Details of violations observed during current inspection and compliance position of violation pointed out

| Violation observed | | | Show couse position | | |
|--------------------|---------------|---------------|---------------------|-----------|---------------|
| Rule NO. | Issued on | Compliance on | Rule NO. | Issued on | Compliance on |
| MCDR17 | Rule 11(1) | 27-NOV-24 | | | |
| MCDR17 | Rule 45(7)(a) | 27-NOV-24 | | | |

Date :

(Dr A Z Khan)

Indian Bureau of Mines