

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/CND/FL-1/NGP

Mine code : 24MSH08001

- (i) Name of the Inspecting : **M017**) **ASHISH MISHRA**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri Vilas Jogi, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 17/03/2017
- (v) Prev.inspection date : 16/09/2006

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DONGARGAON**
- (b) **Registration NO.** : **IBM/5319/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : MAHARASHTRA
District : CHANDRAPUR
Village : DONGARGAON
Taluka : WARORA
Post office : DONGARGAON(RLY)
Pin Code :
FAX No. : (0712)-234239
E-mail :
Phone : 232775(M. D.),233101,23341!
- (f) Police Station :
- (g) First opening date : 19/07/1989
- (h) Weekly day of rest : SUN
2. Address for : 3RD FLOOR, UDYOG BHAVAN,
correspondance : CIVIL LINES,
NAGPUR-440 001
3. (a) Lease Number : MSH0001
- (b) Lease area : 32.7
- (c) Period of lease : 20
- (d) Date of Expiry : 19/12/2008
4. Mineral worked : FLUORITE Main

5. Name and Address of the

Lessee : M/s Maharashtra State Mining Corporation
 5, Abhyankar Nagar Nagpur -
 10 NAGPUR MAHARASHTRA
 Phone:
 FAX :

Owner : SHRI S.A. TAGDE
 CHANDRAPUR MAHARASHTRA
 Phone:
 FAX :

Agent : SHRI P.P. SONI
 NAGPUR MAHARASHTRA
 Phone:
 FAX :

Mining Engineer

Name : SHRI S.L. TUPATE, Full Time
 Qualification : MINE FOREMAN'S CERTIFICATE
 Appointment/ : 04/06/2004
 Termination date

Geologist

Name : SHRI P.P. SONI, Full Time
 Qualification : MSc(Geo.)
 Appointment/ : 01/09/2003
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	15/02/2002
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	08/07/2008
	:	FMCP under 23C(1)	27/05/2013
	:	Modif.of approved Mining Plan	19/07/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	G1	G1	Exploration was earlier done by DGM, Maharashtra. Lessee has drilled additional 7 boreholes in the lease area in 2003-04.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Approximately 10 ha	Approximately 10 ha	Additional exploration has been proposed in form of 09 bore holes to be drilled in 2016-17 and 2017-18. Area for which surface rights are held with lessee has been explored in detail.
1e	Balance reserve as on 01/04/20	As on 01/04/2016, Balance reserves are: 111-231131 T 121- 63860 T 221- 100000 T	As on 01/04/2016, Balance reserves are: 111-225518 T 121- 63860 T 221- 100000 T	
1f	General remarks of inspecting officers on geology, exploration etc			Most of the area is not under the surface rights of the lessee. The area which is held under the surface rights by the lessee has been explored in detail. Exploration proposals are also done to prove depth consistency of the deposit.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In the centre of the northern part of the lease area in between N300 to N 500 and E 300 to E 900	As per the proposals.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes	
2c	Stripping ratio or ore to OB ratio	No proposal	1:0.29	
2d	Quantity of topsoil generation in m3	No proposal	696 cuM	
2e	Quantity of overburden generation in m3	Not Proposed	696 cuM	Overburden is in form of very thin soil mixed with clay. Hence complete material is being excavated and dumped separately.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Deposit is varying in grade within the lease area and within one working bench. Presently the development is being done in the area already proved through exploration and the development done is satisfactory.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	No proposals	2333.46 T	Modification in the approved mining plan was approved on 19/07/2016 and 2015-16 was considered as lapse period.

3c	Recovery of sailable/usable mineral from ROM production	95%	100%	No dispatch is being done from the lease and complete material is being stacked grade-wise within the lease area. Hence, no such classification has been considered as usable/salable.
3d	Quantity of mineral reject generation	Not proposed being lapse period	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Not Applicable	Not Applicable	
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	Not Applicable	Not Applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No	No	
3j	Provision of drilling and blasting in mineral benches	Yes	Yes	As Fluorite occurs within shear zone, therefore, drilling blasting practices are very limited.
3k	Provision of mining machineries in mineral benches	No machinery in mineral Benches except 2 small Tippers/Trucks for transportation of ore to sorting yard	As per the proposals	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	3 m bench height is proposed and actual bench height is within permissible limits for category B mine.
3m	Total area covered under excavation/pits	1.34 ha	1.34 ha	
3n	Ore to OB ratio for the pit/mine during the year.	No proposals	1:0.29	As the working has been limited to the existing pit, encounter of ore zone caused less Ore to OB ratio.
3o	Total area put in use under different heads at the end of year	Area under pits: 1.34 ha Area under top soil dump: 1.70 ha Area under Waste dumps: 0.70 ha Area under mineral storage: 1.02 ha Area under infrastructure : 0.01 ha Area under Roads: 0.63 ha Green Belt: 0.35 ha Undisturbed Area: 25.86 Total: 31.22 ha	As per the proposals	

3p	Production of ROM mineral during the last five year period as applicable	2011-12: No proposals being lapsed period 2012-13: No proposals being lapsed period 2013-14: No proposals being lapsed period 2014-15: No proposals being lapsed period 2015-16: No proposals being lapsed period	2011-12: 3020.53 T 2012-13: 3363.54 T 2013-14: 2461.72 T 2014-15: 2946.43 T 2015-16: 2333.46 T
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3q	General remarks of inspecting officers on method of mining etc.	Method of mining is manual which is suitable to type of formation (requirement of limited drilling and blasting).
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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)	Yes	Yes	
4b	Location of topsoil, OB and mineral reject dumps	Top Soil dumps: Location 1: N300 to N400 & E700 to E 800 Location 2: N400 to N500 & E400 to E700 Waste Dump: Location1: N200 to N400 & E400 to E700 Location 2: N400 to N500 & E600 to E700	As per the proposals	

4c	Number of dumps within lease area and outside of lease area	3 Top Soil Dumps, 3 Waste Dumps and 2 mineral stack/ ore storage yards- all within lease area	As per the proposed	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	All dumps within pit limit	All dumps within pit limit	Reason is not having surface rights for rest of the area.
4e	Number of active and alive dumps.	2 waste dumps, 3 soil dumps	As per the proposed	
4f	Number of dead dumps.	1 waste dump	1 waste dump	Stabilized through plantation
4g	Number of dumps established.	1 waste dump	As per the proposed	
4h	Whether Retaining wall or garland drain all along dumps are there.	No	No	As all the dumps are within the pit limits, no garland drain or retaining wall constructed.
4i	Length of Retaining wall or garland drain all along dumps	Nil	Nil	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management			Waste dump management is good; one waste dump has been stabilized through plantation. Rest two dumps are active. Three top soil dumps are there. After acquiring the surface rights for the complete area, proper development and waste management can be ensured.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Nil	Nil	Area is under exploitation
5b	Area under backfilling of mined out area	Nil	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No	No	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			There is small scale workings in the area and due to non-acquisition of land, systematic development could not be done on entire lease area. As limited area is available presently, there are no proposals for backfilling and restoration of land.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	Yes	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	Nil	Green belt: 0.35 ha area covered under afforestation Dump Plantation: 0.15 ha	

6d	No. of saplings planted during the year	Nil	Nil	
6e	Cumulative no .of plants	Nil	830 Saplings	
6f	Any other method of rehabilitation	No	No	
6g	Cost incurred on watch and care during the year	Nil	Rs 75000/- approximately	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Nil	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Nil	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil	Part of the exploited pit shall be converted into water reservoir at conceptual stage.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No	No	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Green Belt development	Green belt plantation done on 0.35 ha area.	

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Yes	Environment monitoring is being done as per MoEF guidelines. As the water may get contaminated with the Fluoride, water monitoring and water treatment is being done regularly.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			In the progressive closure activities, plantation on dumps and green belt has been done by the lessee. Further, top soil has been stacked separately for future use. Environmental monitoring is being done regularly.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wise sorting within lease area	As proposed	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	

7c	Different grade of mineral sorted out at mines.	Lumps and fines of various grades	A. Lumps Grades based on percentage of CaF ₂ : 85% & above, 80-85%, 75-80%, 70-75%, 65-70%, 60-65%, 55-60%, 50-55%, 45-50%, 40-45%, 35-40%, 30-35% B. Fines (-25mm size) Grades based on percentage of CaF ₂ : 35-40%, 40-45%, 45-50%, 50-55%, 60-65%, 65-70% Total 18 grades for lumps and fines and rejects with 30-40% CaF ₂ Lumps is also under provision as and when generated.	
7d	Any beneficiation process at mines	No	No	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Being high valued mineral, mineral conservation is being practiced in true spirits in the mine. Several grades are simultaneously mined for optimal usage/blending.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and stacking	Separate removal and stacking	Top soil dump is available over 1.70 ha area
8b	Concurrent use or storage of topsoil	Storage	Storage of generated top soil is being done.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No	No	Restoration of land is proposed in the conceptual stage.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	One dump is reclaimed through plantation	One dump is reclaimed through plantation	Pit is under exploitation, therefore, no restoration or reclamation is proposed or done for the pit. Other dumps are active and not proposed for reclamation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes	Yes	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Area around the lease/working pit is under cultivation. Due to small scale workings, not much degradation of environment is observed. For Fluoride, lessee has built up a water treatment plant through which water is being treated and supplied for drinking water purpose to the workers and local residents.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns		Return submission is up to date. Returns are being submitted online.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Shri Vilas Jogi Mining Geologist: Shri Gunwant Wadpalliwarand Shri R. G. Marbate	Mining Engineer: Shri Vilas Jogi Mining Geologist: No geologist is presently appointed as both geologists have resigned from their duties recently. Appointment of geologist is in process and being a SPSU, the matter is forwarded to Board of Directors for approval (as informed by Shri P. Y. Tembhare, GM).	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Correct information furnished.	Correct information furnished.	Spot guidance given.
9d	Scrutiny of Annual return on afforestation	Nil	Correct information given.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Correct information furnished	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock: Nil Graded Ore stock: 12247.45 T (total for all grades)	Correct information given.	Generated ROM is stacked as graded ore and therefore, no ROM stock is available.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Grade-wise Ex- mine price furnished	Correct information given as per Rule 45 of MCDR for the cases where no sale has occurred.	
9h	Scrutiny of Annual return on fixed assets	Given for Land, Building and Machinery	Correct information furnished.	

9k	Scrutiny of Annual return on mining machineries	Reported machineries are: Air Compressor-1 no. of 60 HP, Truck/tippers- 2 Nos. of 110 HP, Water pump-2 Nos. of 19 & 5 HP, Jeep-1 No. of 55 HP.	Correct information furnished.
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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

Date :

(ASHISH MISHRA)

Indian Bureau of Mines