

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-23/BBS

Mine code : 30ORI13051

- (i) Name of the Inspecting : **S010**) **SHRI G.C. SETHI**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri H.S.Pattnayak, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 25/11/2019
- (v) Prev.inspection date : 28/08/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PATABEDA**
- (b) **Registration NO.** : **IBM/290/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address :
State : ORISSA
District : SUNDARGARH
Village :
Taluka :
Post office :
Pin Code :
FAX No. : 06767-275770
E-mail : mgmbbl@gmail.com
Phone : 06767-275318, 276319
- (f) Police Station : KOIRA
- (g) First opening date : 12/11/2006
- (h) Weekly day of rest : SUN
2. Address for : VILLAGE- PATABEDA,
correspondance P.O.- MALDA
DISTRICT- SUNDARGARH,
3. (a) Lease Number : ORI0979
- (b) Lease area : 28.4
- (c) Period of lease : 20
- (d) Date of Expiry : 07/03/2026
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/S.MGM.MINERALS (P) LTD
SUNDARGARH ORISSA
Phone:
FAX :

Owner : M.G.MOHANTY
PB-17,PO.BARBIL,KEONJHAR
ORISSA. KEONJHAR ORISSA
Phone: 06767-30318
FAX : 06767-30770

Agent : B. N. Mohapatra
2A, Forest park Bhubaneswar
KHURDA ORISSA
Phone: 0674-2596390
FAX : 0674-2596400

Mining Engineer

Name : SHRI P K SATAPATHY,Full Time
Qualification : B E MINING
Appointment/ : 01/03/2013
Termination date

Geologist

Name : SHRI M K PATNAIK,Full Time
Qualification : MSC (GEOLOGY)
Appointment/ : 01/09/2009
Termination date

Manager

Name : HIMANSHU PATTNAIK
Qualification : DIGREE MINING
Appointment/ : 11/05/2014
Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	08/11/2002
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	26/10/2007
	:	Mining Scheme rule 12 MCDR1988	01/04/2011
	:	Mining Scheme rule 12 MCDR1988	28/03/2016
	:	Modif.approved Mining Scheme	24/11/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No backlog of exploration. However, only 10 nos of boreholes were proposed in the year 2018-19.	There are 10 nos. of boreholes were drilled during the year 2018-19.	Nil
1b	Exploration over lease area for geological axis 1 or 2	24 nos of boreholes were proposed during the plan period i.e. from 2017-18 to 2020-21 to brought area under G1/G2 level.	During the year 2018-19 only 10 nos of boreholes were drilled in the lease hold.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	The exploration undertaken In house by the company.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	24 nos of boreholes were proposed during the plan period i.e. from 2017-18 to 2020-21 for exploring the balance area.	10 nos of boreholes were drilled during the year 2018-19 as envisaged in the proposal.	Nil
1e	Balance reserve as on 01/04/20	As per the approved documnet on 24.11.2017, the iron ore reserves are 11.11 million tonnes and resources of 0.63 million tonnes.	The updated reserves and resources as on 01.04.2019 is arrived at 10.07 million tonnes and resources of 0.63 million tonnes.	Nil

1f	General remarks of inspecting officers on geology, exploration etc	During he year 2018-19, there are 10 nos. of boreholes were drilled in the lease area as proposed in the approved document.	Nil
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Central portion of the lease area.	Central portion of the lease area.	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top soil exists and generation of the same is envisaged. However, seperate benches in OB and mineral are envisaged	Seperate benches in OB and iron ore zone are formed. No topsoil generated during 2018-19.	Nil
2c	Stripping ratio or ore to OB ratio	1:0.035 t/cu.m. in the year 2018-19.	1:0.033 t/cu.m. during 2018-19.	Nil
2d	Quantity of topsoil generation in m3	Not applicable	Nil	Nil
2e	Quantity of overburden generation in m3	53650 cu.m.	Only 26500 cu.m. of overburden material was generated during 2018-19.	The waste generation is less due to irregular nature of the ore body
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		The mining operations are confined to a single quarry by formation of systematic benches both in overburden and in ore zone. The operations are as per the proposal.	Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	One	One	Nil
3b	Quantity of ROM mineral production proposed	1.5 million tonnes	0.79 million tonnes	Lower side production is due to non availability of EC.
3c	Recovery of sailable/usable mineral from ROM production	Saleable ore 1.25 million tonnes and mineral rejects 0.24 million tonnes	Saleable ore 0.66 million tonnes. and mineral rejects 0.12 million tonnes	Nil
3d	Quantity of mineral reject generation	0.24 million tonnes	0.12 million tonnes	Nil
3e	Grade of mineral rejects generation and threshold value declared.	+45%-58% Fe	+45%-58% Fe	Nil
3f	Quantity of sub grade mineral generation.	No separate generation proposal for sub-grade.	The mineral reject generated is considered as the sub-grade	Nil
3g	Grade of sub grade mineral generation	NA	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable.	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling and blsting is proposed in mineral benches.	Deep hole drilling and blasting is carried out.	Nil

3k	Provision of mining machineries in mineral benches	Shovel and dumper combination is proposed for excavtion and hauling.	Shovel and dumper combination is deployed for excavtion and haulin	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	10 m bench height is proposed.	Avarage 10 m bench height is maintained.	Nil
3m	Total area covered under excavation/pits	13.64 ha till the end of plan period upto 2020-21.	12.34 ha as on 2018-19.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.035 t/cu.m. in the year 2018-19.	1:0.033 t/cu.m. achived during 2018-19.	Nil
3o	Total area put in use under different heads at the end of year	Total area put to use under differEnt heads till the end of plan period is 28.397 ha	28.32 ha	Nil
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 536605 tonnes 2015-16: 556783tonnes 2016-17: 662338 tonnes 2017-18: 800596 tonnes 2018-19: 1500000 tonnes	2014-15: 292876 tonnes 2015-16: 285480 tonnes 2016-17: 241430 tonnes 2017-18: 293778 tonnes 2018-19: 796000 tonnes	The production is in lower trend due to want of MoEF clearance in diffrent times.
3q	General remarks of inspecting officers on method of mining etc.		The mining operation is confined to a single quarry. Separate and systematic benches both in overburden and in ore zone are formed. More or less the mine excavation is confined to the proposal.	Nil

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No top soil exists. So, no generation of topsoil is envisaged. However, seperate dumping of OB and mineral rejects are proposed.	Sseperate dumping of OB and mineral reheets are done. No topsoil generated during 2018-19.	Nil
4b	Location of topsoil, OB and mineral reject dumps	The waste generated from mine is proposed to be dumped in Dump-3 and mineral rejects are stacked separately and blended with high grade ore as per the suitability.	The waste generated from mine is dumped in Dump-3 and mineral rejects are stacked separately and blended with high grade ore as per the suitability.	Nil
4c	Number of dumps within lease area and outside of lease area	one waste dump is proposed with in lease area.	The waste dumping is done in dump-3 as per the proposal.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	beyond UPL	beyond UPL	Nil
4e	Number of active and alive dumps.	one active dump	one active dump	Nil
4f	Number of dead dumps.	NA	Nil	Nil
4g	Number of dumps established.	NA	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	The retaining wall and garland drain are proposed all along toe of the active dump.	The retaining wall and garland drain are constructed all along the toe of active dump.	Nil

4i	Length of Retaining wall or garland drain all along dumps	180 m retaining wall and 710 m garland drain are proposed	180 m retaining wall and 710 m garland drain are maintained.	Nil
4j	Number of settling ponds	Nil	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management		The waste dumping is done in active waste dump no. 3 as per the proposal in mining plan.	Nil

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.	Area not matured for reclamation and rehabilitation ,thereby no backfilling envisaged.	Nil	Nil
5b	Area under backfilling of mined out area	Area not matured for reclamation and rehabilitation ,thereby no backfilling envisaged.	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	Area not matured for reclamation and rehabilitation ,thereby no backfilling envisaged.	Nil	Nil

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Area not matured for reclamation and rehabilitation, thereby no backfilling done in the mine	Nil
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Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	PMCP report to be submitted before 1 st July of the following year for the preceding year.	Submitted for 2018-19.	Nil
6b	Area available for rehabilitation (ha) .	Not applicable	Nil	Nil
6c	afforestation done (ha).	0.0875 ha	0.0875 ha	Nil
6d	No. of saplings planted during the year	240 nos.	5140 nos. both within and out side the lease.	More plantation has been done during 2018-19.
6e	Cumulative no .of plants	No specific proposal.	25035 nos. of saplings	Nil
6f	Any other method of rehabilitation	Not applicable.	Nil	Nil
6g	Cost incurred on watch and care during the year	Nil	Rs 3000.00	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	No mineral has been exhausted, thereby reclamation or backfilling is not applicable.	Nil	Nil

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No mineral has been exhausted, thereby reclamation or backfilling is not applicable.	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No mineral has been exhausted, thereby reclamation or backfilling is not applicable.	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not applicable	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not applicable.	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not applicable.	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Not applicable.	Nil	Nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	Monitoring of all environmental parameters in the core and buffer zone are envisaged.	Quarterly monitoring of ambient air, water quality, noise levels etc. are being done.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		No mineral has been exhausted, thereby reclamation or backfilling is not done in the mine.	Nil

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wsie sorting is proposed.	Grade-wsie sorting is being done.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised means.	Mechanised means.	Nil
7c	Different grade of mineral sorted out at mines.	+45%-58% Fe and +58% Fe	+45%-58% Fe and +58% Fe	Nil
7d	Any beneficiation process at mines .	Not applicable.	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		There is no mineral conservation problem in the mine.	Nil

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	No top soil exists and topsoil generation envisaged.	Nil	Nil
8b	Concurrent use or storage of topsoil	Not applicable	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Seperate dumps for OB and mineral rejects are proposed.	Seperate dumps for OB and separate stack for mineral rejects are made.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No area is matured for reclamation & rehabilitation .	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No area is matured for reclamation & rehabilitation as the mineral has not been exhausted.	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	240 nos	5140 nos of saplings wre planted during 2018-19.	More plntation has been done during 2018-19.
8g	Survival rate	Not specified.	85%	Nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on the haul roads is envisaged.	Water sprinkling on haul roads is done in regular basis for dust supression.	Nil

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	No area is matured for reclamation & rehabilitation as the mineral has not been exhausted. The aesthetic beauty of the lease area is enhanced by way of sapling plantation on the dump slope for the sake of protective rehabilitation measures.	Nil
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monhtly and annual returns are to be submitted as per rule 45 of MCDR, 2017	All the monthly returns pertaining to the year 2018-19 along with the annual return for 2018-19 have been submitted to this office.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	(i) Graduate Mining Engineer - 4 (ii) Diploma Mining Engineer -5 (iii) Geologist -2	The employment status of mining engineers & geologist are found to be in order.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Current opencast working: 12.34ha, waste disposal: 3.701ha and plant & bulidings etc.: 8.570ha	Found to be in order.	Nil
9d	Scrutiny of Annual return on afforestation	140 nos. of sapling swithin lease and 5000 nos. out side the ML are indicated.	Found to be okey.	Nil

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	0.12 million tonnes	Found to be in order.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock 40950 tonnes	40950 tonnes	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Production cost Rs 1667.00. The ex-mine price varies from Rs. 1003.54 to 3017.17.	Rs 1667.00. The ex-mine price varies from Rs. 1003.54 to 3017.17.	Nil
9h	Scrutiny of Annual return on fixed assets	Rs 151824387	Rs 151824387	Nil
9k	Scrutiny of Annual return on mining machineries	BACK HOE 2.100 CUM - 6 BACK HOE 0.900 CUM - 3 FRONT END LOADER 0.300 CUM - 1 WHEEL LOADER 1.800 CUM - 4	The deployment status of mining machineries are found to be in order.	Nil

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

Violation observed		Show cause position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on
MCDR17	Rule 45(5)(c 09/12/2019		

Date :

(SHRI G.C. SETHI)

Indian Bureau of Mines