

# MCDR INSPECTION REPORT

## 1.0 GENERAL

SN	Particulars	Details
1	Name of inspecting office & designation	S. Kartikeya, Jr. Mining Geologist, IBM Raipur
2	Date of inspection	22/08/2017
3	Name of the Mine	Sonadih Limestone Mine
4	Total Lease Area (Ha) with breakup of Non-forest and forest land	Forest: Nil Non Forest: Land: 444.763 Ha Total Lease Area: 444.763 Ha
5	Mine Code	30MPR28010
6	IBM Registration Number under rule 45 of MCDR, 1988	IBM/378/20111
7	Name of the lessee, Address, phone, email and fax number	Sonadih Cement Plant Lafarge India Private Limited PO: Raseda, Tehsil: Balodabazar District: Balodabazar-Bhatapara, Pin Code: 493332 Phone: 07727-72226 Fax: 07727-72227 Email: sanjay.joshi@nuvoco.in
8	Village	Raseda
8	Taluka / Mandal / District	Balodbazar
10	State	Chhattisgarh
11	Post office & PIN	Balodabazar-493332
12	Nearest police station	Balodabazar
13	Nearest Railway station	Bhatapara
14	Date of Grant of Mining Lease	20/12/1985
15	Date of Execution	15/01/1986
16	Date of opening of Mine	12/12/1989
17	Date of first Renewal, if applicable and its period & expiry	As per MMDR Amendment Act, 2015 section 8A Validity of the lease period: 15/01/1986 to 14/01/2036 (Fifty years)
18	Date of second Renewal, if applicable and its period & expiry	Not Applicable
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not Applicable
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Ujjwaj Batria, Country CEO Date of Appointment: 01/01/2011 Equinox Business Park (Peninsula Techno Park), Tower 3, East Wing, 4th Floor, Off Bandra-Kurla Complex, LBS Marg, Kurla (West), Mumbai, Maharashtra, Pin Code: 400070 Phone: 022-61202628 Fax: Email: ujjwal.batria@nuvoco.in
21	Name of the Mine Agent with Address, phone, email, fax	Shri Sanjay Joshi, Sr. Vice President Date of Appointment: 15/04/2016

	number and date of appointment	Sonadih Cement Plant Lafarge India Private Limited PO: Raseda, Tehsil: Balodabazar District: Balodabazar-Bhatapara, Pin Code: 493332 Phone: 07727-72226 Fax: 07727-72227 Email: sanjay.joshi@nuvoco.in
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Nitesh Raghuvanshi, DGM Mines Date of Appointment: 29/12/2014 Total experience: 16 Years Sonadih Cement Plant Lafarge India Private Limited PO: Raseda, Tehsil: Balodabazar District: Balodabazar-Bhatapara, Pin Code: 493332 Phone: 07828685486 Fax: 07727-72227 Email: nitesh.raghuvanshi@nuvoco.in
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Vedprakash Dewangan Qualification: B.E. (Mining) Total experience: 10 Years Date of Appointment: 12/11/2008 Sonadih Limestone Mine Lafarge India Private Limited PO: Raseda, Tehsil: Balodabazar District: Balodabazar-Bhatapara, Pin Code: 493332 Phone: 09893019629 Fax: 07727-72227 Email: vedprakash.dewangan@nuvoco.in
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57 of MCDR, 2017.	Geologist not appointed.
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	<b>Mining Plan</b> approved vide letter RAP/LST/MPLN-107 Nagpur Dated 17/09/1990 Period: 1990-91 to 1994-95 <b>2nd Mining Plan</b> approved vide letter no. 314(3)/2005-MCCM(CZ)/MP-23 Nagpur dated 05/07/2006 Period: 2006-07 to 2010-11 <b>Modified Mining Plan</b> approved vide letter no. 314(3)/2006-MCCM(CZ)/MP-23 Nagpur dated 21/03/2007 Period: 2007-08 to 2010-11
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	<b>1st Scheme of Mining</b> approved vide letter no. 314(3)/93-MCCM(C)/scheme-4 Nagpur dated 03/04/1995 Period: 1995-96 to 1998-99 <b>2nd Scheme of Mining</b> approved vide letter no. 314(3)/2001/MCCM(C)/MP-3 Nagpur dated 18/08/1999 Period: 1999-2000 to 2003-04 <b>Modified Scheme of Mining</b> approved vide letter

		no. 314(3)/2001/MCCM(C)/MP-3 Nagpur dated 10/10/2002 Period: 2002-03 to 2003-04 <b>3rd Scheme of Mining</b> approved vide letter no. 314(3)/2003/MCCM(C)/S-12 Nagpur dated 14/06/2004 Period: 2004-05 to 14/01/2006 <b>1st Scheme of Mining</b> approved vide letter no. 314(3)/2010-MCCM(CZ)/S-61/1103 Nagpur dated 16/08/2011 Period: 2011-12 to 2015-16 <b>1st Review of Mining Plan</b> approved vide letter no. PRP/LST/MPLN-107/NGP/2015/19 Raipur dated 18/08/2016 Period: 2016-17 to 2020-21
27	Mineral(s) granted in lease and proved for mining	Limestone
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Category A Fully Mechanised
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

### **1.0 Exploration**

SN	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	2016-17: 05 Nos. of core bore holes with a cumulative depth of 630 meters	05 Nos. of core bore holes have been drilled with a cumulative depth of 630 meters	-
1b	Exploration over lease area for Geological axis 1 or 2.	Under G1 Category: 331.00 Ha Under G2 category: 113.763 Ha	Under G1 Category: 331.00 Ha Under G2 category: 113.763 Ha	Mineralised: 179.650 Ha Non Mineralised: 265.113 Ha
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Not given in the Approved document	M/S Shreeram Gemicon Pvt. Ltd.	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not proposed in the approved document	Not applicable	Lease area already been explored in G1 and G2 level
1e	Balance reserves as on 01.04.2017	Under (111) Category: 24.18 Million Tonnes Under	Under (111) Category: 26.27 Million Tonnes Under	-

		Under (211) Category: 12.48 Million Tonnes	Under (211) Category: 12.48 Million	
1f	General remarks of inspecting officer on geology, exploration etc.	NIL		

## **2.0 Development**

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	2016-17: Development and production have been proposed from north-eastern and north-western part of the lease area	2016-17: Production and development was carried out from different locations i.e. northern, north-central, central south-central and south-western part of the lease area.	Deviation has been pointed out.
2b	Separate benches in topsoil, overburden and mineral (Rule 13 of MCDR, 2017)	Top Soil: 0 No. Ore/Mineral: 04 nos. OB/Waste: 01 no.	Top Soil: 0 No. Ore/Mineral: 04 nos. OB/Waste: 01 no.	-
2c	Stripping ratio or ore to OB ratio	1:0.015	1:0.02	-
2d	Quantity of topsoil generation in m3	Not top soil present in the area	Not top soil present in the area	-
2e	Quantity of overburden generation in m3	80000 cubic meter	62037 cubic meter	-
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	In the year 2017-18 from north-eastern, eastern, north-western and south-western part of the lease area whereas, presently production and development is being carried out from different locations i.e. south-central part of the lease area.		

## **3.0 Exploitation**

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	01 No.	01 No.	-
3b	Quantity of ROM mineral production proposed	5500000 Metric Tonnes	3416172 Metric Tonnes	-
3c	Recovery of salable/usable mineral from ROM production	100%	100%	-
3d	Quantity of mineral reject generation	Dolomite and High MgO Limestone 125000 Metric Tonnes	Dolomite and High MgO Limestone 78240 Metric Tonnes	-
3e	Grade of mineral reject	Below 34% CaO	Below 34% CaO	-

	generation and threshold value declared	Above 4% MgO	Above 4% MgO	
3f	Quantity of sub-grade mineral generation	Not proposed in the approved document	Not Applicable	-
3g	Grade of sub-grade mineral generation	Not proposed in the approved document	Not Applicable	-
3h	Manual / Mechanised method adopted for segregating from ROM	Single stage crushing	Single stage crushing	-
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not proposed in the approved document	Not Applicable	-
3j	Provision of drilling & blasting in mineral benches	<b>(1)</b> IR-ICM 260 Dia 104mm, HP 250. <b>(2)</b> Sandwik-DH 150 Dia 104mm Spacing x Burden 4(m) x 3(m) Blasting – Non Electrical Sequential firing with SME	<b>(1)</b> IR-ICM 260 Dia 104mm, HP 250. <b>(2)</b> Sandwik-DH 150 Dia 104mm Spacing x Burden 4(m) x 3(m) Blasting – Non Electrical Sequential firing with SME	-
3k	Provision of mining machineries in mineral benches	<b>(1)</b> Komatsu-Hydraulic Excavator (03 nos.) 5.1 Cubic meter, 420 HP <b>(2)</b> Telco (Ex600 V) Hydraulic Excavator (01 no.) 3.5 cubic meter, 272 HP <b>(3)</b> H.M. Pay loader (01 no.) 3.1 cubic meter, 218 HP	<b>(1)</b> Komatsu-Hydraulic Excavator (03 nos.) 5.1 Cubic meter, 420 HP <b>(2)</b> Telco (Ex600 V) Hydraulic Excavator (01 no.) 3.5 cubic meter, 272 HP <b>(3)</b> H.M. Pay loader (01 no.) 3.1 cubic meter, 218 HP	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Mineral Avg. Height: 08 m Avg. Width: 30 m	Mineral Avg. Height: 08 m Avg. Width: 30 m	-
3m	Total area covered under excavation/pits	166.66 Ha at the end of Review of Mining Plan	113.030 Ha	-
3n	Ore to OB ratio for the pit/mine during the year	1:0.015	1:0.025	-

3o	Total area put in use under different heads at the end of year	Pit- 166.66 Ha Waste/reject- 7.30 Ha Others- 176.43 Ha At the end of Review of Mining Plan	Pit- 113.030 Ha Waste/reject- 5.727 Ha Others- 63.720	-
3p	Production of ROM mineral during last five-year period, as applicable (In Metric Tonnes)	Yr-2012-13: 5000000 Metric Tonnes Yr-2013-14: 5200000 Metric Tonnes Yr-2014-15: 5200000 Metric Tonnes Yr-2015-16: 5500000 Metric Tonnes Yr-2016-17: 5500000 Metric Tonnes	Yr-2012-13: 3440909 Metric Tonnes Yr-2013-14: 3585611 Metric Tonnes Yr-2014-15: 3414313 Metric Tonnes Yr-2015-16: 3973931 Metric Tonnes Yr-2016-17: 3416172 Metric Tonnes	-
3q	General remarks of inspecting officer on method of mining etc.	NIL		

#### 4.0 Solid Waste Management-Dumping

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 36, 37 of MCDR, 2017)	North-west side of the lease area in between N2405400-2405850 and E 624550-624850	North-west side of the lease area in between N2405400-2405850 and E 624550-624850	-
4b	Location of topsoil, OB & mineral reject dumps	North-west side of the lease area	North-west side of the lease area	-
4c	Number of dumps within lease area and outside lease area	Inside- 02 nos. Outside- NIL	Inside- 02 nos. Outside- NIL	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 14 of MCDR, 2017)	Proposed beyond ultimate pit limit. North-west side of the lease area in between N2405400-2405850 and E 624550-624850	North-west side of the lease area in between N2405400-2405850 and E 624550-624850	-
4e	Number of active & alive dumps	OB - 01 no. Sub-grade – 01 no.	OB - 01 no. Sub-grade – 01 no.	-
4f	Number of dead dumps	NIL	NIL	-
4g	Number of dumps stabilised	Dumps have not been matured for	Dumps have not been matured for	-

		stabilisation.	stabilisation.	
4h	Whether Retaining wall or garland drain all along dumps are there	Not proposed in the approved document.	Not applicable.	Construct ed earlier
4i	Length of Retaining wall or garland drain all along dump	Not proposed in the approved document.	Not applicable.	Construct ed earlier
4j	Number of settling ponds	Not proposed in the approved document.	Not applicable.	-
4k	Specific comments of inspecting officer	NIL		

### 5.0 Solid Waste Management-Backfilling

SN	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not proposed in the approved document	Area not matured for backfilling.	-
5b	Area under backfilling of mined out area	Not proposed in the approved document	Area not matured for backfilling.	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36 of MCDR, 2017)	No top soil within existing quarry.	Not applicable.	-
5d	Total area fully reclaimed & rehabilitated	Not proposed in the approved document	Area not matured for reclamation and rehabilitation.	-
5e	General remarks of inspecting officer on backfilling, reclamation etc	NIL		

### 6.0 Progressive Mine Closure Plan

SN	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2) of MCDR, 2017. Details should be given in the format as given in Annexure-20.	Yes Plantation – 5250 Land to be Degraded- 11.548 Ha. Land to be reclaimed- Nil OB Quantity – 9919 MT	Yes Plantation – 5100 Land to be Degraded- 6.381 Ha Land to be reclaimed- Nil OB Quantity – 91532 MT	-
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year	NIL  81.67 Ha 5250 nos. of saplings	NIL  84.1 Ha 5100 nos. of saplings (WML)	-

	iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	Not given in the approved document	360755 nos.  Rs. 6.25 Lakhs	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	Not proposed in the approved document.	Not Applicable.	-
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	Not proposed in the approved document.	Not Applicable.	-
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Air- Wet Drilling Water-Check Dams Noise-Control Blasting In house environment monitoring cell.	Air- Within Permissible Limit Water- Within Permissible Limit Noise- Within Permissible Limit	-
6f	General remarks of inspecting officer on PMCP compliance & progressive	NIL		

### **7.0 Mineral Conservation**

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Single stage crushing (Different benches to be opened)	Single stage crushing (Operating 4 benches)	-
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Single stage crushing	Single stage crushing	-
7c	Different grade of mineral sorted out at mines	Above 34% CaO grade Limestone	Above 34% CaO grade Limestone	-
7d	Any beneficiation process at mines	Not proposed in the approved document	Not applicable	-
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	NIL		



## **8.0 Environment**

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	80000 Cubic Meter	62037 Cubic Meter	-
8b	Concurrent use or storage of topsoil	Use for Plantation	Use for Plantation	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal has been given for separate dumps for overburden, waste rock and rejects.	Dumping has been carried out as per proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed in the approved document	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed in the approved document	Not applicable	
8f	Baseline information on existence of plantation & additional plantation done (Rule 44 of MCDR, 2017)	Plantation on WML and OML proposed	Plantation Within Mining Lease: 5100 nos.	Out Side Mining Lease: 267856 nos.
8g	Survival rate	75%	80%	
8h	Water sprinkling on roads to control airborne dust	Centralised water sprinkling system on haul road and crusher	Centralised water sprinkling system on haul road and crusher	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	NIL		

## **9.0 Compliance of Rule 45**

S. N.	Item	COMMENTS	Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted upto – July 2017 A.R. submitted upto- F.Y. 2016-17	-

S. N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and	Mining Engineer: Shri Ved Prakash Devangan	NIL	-

	Manager	Geologist: Not appointed		
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Under Pit: 113.030 Ha. Reclaimed: 12.300 Ha Waste Disposal: 5.727 Others: 144.35 Ha	NIL	-
9d	Scrutiny of Annual return on Afforestation	5100 nos. of saplings	NIL	-
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Dolomitic Limestone/Magnesium Limestone CaO 22.98% MgO 6.82%	NIL	-
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock: NIL	NIL	-
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex Mine Price: Rs. 272.25 Production Cost: Rs. 272.25	NIL	-
9i	Scrutiny of Annual return on fixed assets	Rs 511.76 Crores	NIL	-
9k	Scrutiny of Annual return on mining machineries	Given	NIL	-

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:-

Last Inspection details: Shri B.L. Gurjar RCOM IBM Raipur and Shri Suresh Prasad DCOM IBM Nagpur dated 09/01/2016

No outstanding Violations in the mine.

Violation pointed out during inspections: Rule 11(1), 35 and 55 of MCDR, 2017.

नियम	उल्लंघन के प्रकार का विस्तृत ब्यौरा
<b>Rule 11(1)</b>	<p>The following deviations have been found in the mine from the approved Review of Mining Plan vide RPR/LST/MPLN-107/NGP/19-Raipur dated 19/08/2016 for the period of 2016-17 to 2020-21:</p> <p><b>Development: (i)</b> In the approved Review of Mining Plan, there was a proposal given for production of Mineral in the year 2016-17 from north-eastern and north-western part of the lease area, whereas the production and development was carried out from different locations i.e. northern, north-central, central south-central and south-western part of the lease area..</p> <p><b>(ii)</b> In the approved Review of Mining Plan, there was a proposal given for production of Mineral in the year 2017-18 from north-eastern, eastern, north-western and south-western part of the lease area whereas, presently production and development is being carried out from different locations</p>

	i.e. south-central part of the lease area.
<b>Rule 35</b>	Soft copy of the high resolution satellite image obtained from CARTOSAT-2 satellite LISS-IV sensor on the scale of cadastral map, as on the 31st day of March for the Financial year 2016-17, covering the mining lease and an area of two kilometres have not been submitted.
<b>Rule 55</b>	Whole time Geologist has not been appointed.

Shri S. Kartikeya  
Jr. Mining Geologist  
Date of inspection 22/08/2017  
**(Name of inspecting officer with designation and date)**