ENVIRONMENTAL STATEMENT REPORT

NAUBASTA LIMESTONE MINE
(A Unit of Jaiprakash Associates Limited)
JAYPEE NAGAR
REWA (M.P.)

2012 – 2013

SUBMITTED TO
M.P. POLLUTION CONTROL BOARD
BHOPAL (M.P.)

Naubasta Lime Stone Mine ML - I
Jaypee Rewa Plant
Jaiprakash Associates Limited

Introduction: Jaypee Group is the 3rd largest cement producer in the country. The Groups cement facilities are located in various states viz. M.P., U.P., H.P., A.P., Gujrat etc. Oldest plants of the Group are in Satna Cluster (M.P.), which is the highest cement production capacity at a single location.

The group produces Ordinary Portland Cement and Portland Pozzolona Cement under brand name "Jaypee Cement". Rewa cement complex has three modern, computerized process control cement plants namely "Jaypee Rewa Cement Plant (02 Nos. Kiln)" & "Jaypee Bela Cement Plant (01 No. Kiln)" with an aggregate production capacity of 6.0 MTPA cement.

The Group is committed towards the safety and health of employees and the public. The motto of the Group is '**Work for Safe, Healthy, Clean & Green Environment'**. Both Jaypee Rewa & Jaypee Bela Plants of Jaiprakash Associates Limited at Jaypee Nagar and Jaypeepuram respectively were awarded Five Star Rating & subsequently prestigious Sword of Honour by the British Safety Council, U.K. for Safety and Health Management System.

Jaypee Rewa Cement Plant (JRP) is a division of Jaiprakash Associates Limited (JAL) groups of Companies with Head Office and Registered Office both at Noida (U.P.), a leading Business House with its presence in Core Industries like Cement industry, Construction division, Hydropower & Thermal Power, Education, I.T. & a chain of five star hotels in major cities of India, which has been at the vanguard in generating wealth for the Nation.

JRP Unit-I and Unit-II is located in Huzur Tehsil, Rewa district of Madhya Pradesh state at an aerial distance of about 15 km North-West of Rewa Town. Geographically, it is located at latitude $24^0$33'47'' North and longitude $81^0$11'41'' East. JRP Unit-I and Unit-II have come into operation in the year 1986 and year 1992 respectively. The production capacity of both the units was enhanced in the year 2005. The cement production process is based on dry process. Present production capacity of Jaypee Rewa plant is 3.5 million tonne Cement per Annum.

Naubasta Limestone Mines is located in Huzur Tehsil, Rewa district of Madhya Pradesh state at an aerial distance of about 13 km North-West of Rewa Town. Geographically, it is located at latitude $24^0$32'30'' to $24^0$35'00'' North and longitude $81^0$10'30'' to $81^0$12'12'' East.

Naubasta Limestone Mines came into operation in the year 1986. The production in mine started in the year 1986 with production capacity of 3.3 MTPA which was further enhanced to 4.0 MTPA in the year of 2005 for both ML – I & ML – II.

"FORM – V"

(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31ST MARCH 2013

Naubasta Lime Stone Mine (ML-I)
(Unit of Jaiprakash Associates Limited)
Mine Lease area - 470.941 ha.

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	**Naubasta Lime Stone Mine** **(Unit of Jaiprakash Associates Limited)** **Jaypee Nagar, - 486 450** **REWA (M.P.)**
(II)	Industry Category Primary (STC CODE) Secondary (SIC CODE)	Captive Lime Stone Open Cast Mechanized Mine.
(III)	Production Capacity	2.15 MTPA
(IV)	Year of Establishment	December, 1986
(V)	Date of last Environmental Statement Submitted	24th September 2012

PART – B

Water & Raw Material Consumption

A. Water consumption m^3/ day

(i)	Process	-	66
	Cooling	-	Nil
	Domestic	-	0.22

(ii) Consumption per unit of production

Name of the Product	Process Water Consumption per unit of Product Output (m^3/MT of Limestone)	
	During the Previous Financial Year (2011-2012)	During the Current Financial Year (2012-2013)
Limestone	0.043	0.015

B. Raw Material Consumption

Name of the Raw Material	Name of Product	Consumption of Raw Material per Unit of Product Output (MT/MT or M^3/MT of Limestone)	
		During the Previous Financial Year (2011-2012)	During the Current Financial Year (2012-2013)
ANFO	Limestone	0.00012 M3/MT	0.00011 M^3/MT
HSD		0.0000069 M^3/MT	0.0000069 M^3/MT

Total Production (MT)

Name of Product	During the Previous Financial Year (2011-2012)	During the Current Financial Year (2012-2013)
Limestone & Shale	1352352	1413088

PART - C

Pollutant Discharged To Environment / Unit of Output

(Parameters as specified in the consent issued)

S. No.	Pollutants	Quantity of Pollutants Discharged (Mass / day) (tonne/day)	Concentrations of Pollutants in discharged (Mass / Volume) (mg/Nm^3)	Percentage of variation from prescribed standard with reasons
(a)	**Water**			
(i)	**Domestic**	Zero Discharge		
(ii)	**Industrial**	Nil	Nil	
(b)	**Air**			
	Ambient air monitoring			
	SPM parameter is within limit and report attached as **Annexure- I**			

PART – D

Hazardous Wastes

(As specified under Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008)

Hazardous Waste		Total Quantity (Kgs.)			
		During the Previous Financial Year (2011-2012)		During the Current Financial Year (2012-2013)	
(a)	From Process	Used oil	Waste oil	Used oil	Waste oil
		Nil	Not Applicable	3780	Not Applicable
(b)	From Pollution Control Facilities.	Not Applicable		Not Applicable	

PART - E

Solid Wastes

Solid Waste		Total Quantity	
		During the Previous Financial Year (2011-2012)	During the Current Financial Year (2012-2013)
(a)	From Process	Not Applicable	Not Applicable
(b)	From Pollution Control facilities	Not Applicable	Not Applicable
(c)	(i) Qty. recycled or reused within the unit.	NIL	NIL
	(ii) Sold	NIL	NIL
	(iii) Disposed	NIL	NIL

PART – F

PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

Hazardous waste: No hazardous waste is generated from the mining operation. Maintenance & repairing of all Heavy Earth Movers Machines are being done at mines auto workshop, the used Oil generated from auto workshop is being collected in empty drums and barrels and then sent to store deptt for proper handling and storage. The store Deptt stores all collected hazardous waste at specified location (as per HWMH & Transboundary Movement Rule, 2008) from where the hazardous waste is being sold out to authorize recyclers.

Solid waste: Overburden generated during mining operation is used for backfilling of mined out area.

Characteristics:

1. Used oil

SN	Parameter	Result	Unit	Requirements as per CPCB schedules-5	Quantity in kg
1	Arsenic	< 1	ppm	5 Max	3780
2	Cadmium+Chromium+Nickel	< 1	ppm	500 Max	
3	Lead	< 1	ppm	100 Max	
4	Poly Chlorinated Biphenyls(PCB)	BDL	----	Below Detection Limit	
5	Polyaromatic Hydrocarbons (PAH)	N.D.	%	6 Max	

PART – G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.

Following measures have been adopted for abatement of pollution and conservation of natural resources:-

1. Wet Drilling

We are very conscious for the fugitive emission during drilling operation. We have adopted wet drilling practices for drilling of limestone in mines. The water droplets are injected in the bore and simultaneously drilling is carried out. The system is very effective & no emission is observed during drilling.

Photograph: Wet drilling machine

2. Controlled Blasting

Blasting is being done in controlled way by adoption of relay-delay detonators & with the help of ANFO (Ammonium Nitrite & Fuel Oil) for control of noise pollution. After blasting, water spraying is carried out for suppression of fugitive dust emission. During blasting all surrounding area & road junctions are evacuated and stopped the movements.

3. Loading activity

Loading of blasted lime stone in wet condition is being done with the help of sufficient capacity 4.2 m^3 shovels / loaders & transported by the high capacity 32 Tonners dumper / Hyva. The high capacity of shovel & dumper reduces the fugitive emission during material handling.

Photograph: L/s loading activity

4. Water sprinkling on haulage roads through tankers:

We have a dedicated water tanker of capacity 12 m^3 for water spraying on mines haulage roads. The rain water collected in mines reservoir through the garland canal is being used for mines haulage roads water spraying. The haulage roads are always kept in wet condition to minimize the fugitive emission on roads.

Photograph: Haulage road water spraying

5. Covered belt conveyor

We have 02 crushers, one at mine pit & another at plant site. The crushed limestone at mine crusher is transported through 1525 mtr. covered conveyor belt. Additionally, sufficient capacity bag filters are installed at major transfer points & water injection system is provided at various locations.

6. Water spraying system at crusher dump hopper

Blasted lime stone is transported by Hyva through wet haulage road & dumped to the plant crusher hopper. A self innovated water spraying system namely "**ECO FRIEND**" has been installed at crusher dump hopper. The system is equipped with high rpm fan & high pressure water pipe line for generation of moist air for suppression of dust generated after limestone dumping.

7. Water Conservation

We have 6.0 km garland canal for rain water harvesting from colony and plant premises. This harvested rain water is stored in own abanded mines reservoir. We have 4 nos of huge reservoirs at mines. The water is being taken to these reservoirs and the total rain water harvested from colony and plant premises is stored in

these reservoirs .The water from these reservoir are used in cement manufacturing process and cooling purposes.

The capacity and quantity of water collected in fours reservoirs are as under March, 2013.

Reservoir	Total Area (ha.)	Total capacity (Lac m^3)	Present Status (Lac m^3)
I	18.5	12.78	11.05
II	3.0	1.8	1.23
III	12.187	11.7	10.61
IV	8.0	6.0	5.0

8. Utilization of Auto work shop oil separator cleaned water

A gravity settler oil separator has been installed for treatment of autoworkshop effluent. The treated water is used for dust suppression on haulage road in mine area.

9. Collection of Hazardous Waste

Used oil generated from the maintenance of heavy mining machinery at auto workshop is collected at designated storage yard, from there it is sold out to authorized recyclers.

PART – H

ADDITONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.

1. Extensive plantation in and around the Plant.

We have a dedicated team of skilled horticulturists for the afforestation and greenery development program at our plant and mines under the supervision of senior experienced person. In addition to the horticulture deptt. Environment Cell also does the plantation activity.

Steps taken to protect plantation:

1. Barricading provided for protection of plants.
2. Two numbers of dedicated water tankers having capacity of 1800 liter are provided for regular watering of plant and dedicated manpower is provided for regular watering the plants.
3. Tree Guard is provided for protection of the plants.

Particulars	Last Financial Year (11-12)	Current Financial Year (12-13)
Mine Area (ML – I & ML – II)	10400	21885

PART – I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONMENT.

Details of Improvement Management Program for Environment Protection are as under:

S. N	Department / Plant	Details of IMP	Environmental Benefits

No.			
1	Auto Workshop	To maintain average fuel consumption of mining machineries	Conservation of Natural Resources
2	Auto Workshop	To increase the % availability of mining machineries	To reduce the maintenance time
3	Auto Workshop	Improve the competency of driver	To increase the environment awareness
4	Auto Workshop	To reduce average consumption of lubricants by 10 %	Conservation Resources

For Naubasta Lime Stone Mine ML - I

(A Unit of Jaiprakash Associates Limited)

Jaypee Nagar, REWA (M.P.)

(Alok Joshi)

Jt. President (P & QC)