

Name of the Project: Naubasta Limestone Mine (A Unit of M/s Jaiprakash Associates Limited) for Expansion of Mining Capacity from 3.3 MTPA to 4.0 MTPA at villages Atrauli, Gadhma, Kachoor, Naubasta, Kauadhan, Chhijwar and Jonhigarhi, Tehsil Huzur District Rewa (M.P.)

Project Code:

Clearance Letter No. : MoEF vide letter No:- J-11016/202/2003-IA-II(M) Dated 6th Jan 2005

Period of Compliance Report: April 2015 – September 2015

A. SPECIFIC CONDITIONS:

S No.	Conditions	Status of Compliance
I	Top soil shall be stacked properly with proper slope at ear marked site(s).	Topsoil (150397 CuM) is being stacked properly at earmarked site with proper slope & is being used for green belt development.
II	Peripheral bunds, check dams & siltation ponds of appropriate size should be constructed to arrest silt & sediments flow from the mining operations. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted & maintained. Garland drain (size, gradient & length) & sump capacity should be designed keeping 50% safety margin over & above the peak sudden rainfall & maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.	In order to arrest silt and sedimentation flow from the mining area, a check dams/siltation ponds was constructed. The water collected was used for sprinkling on the mine haul roads and green belt development. Sump & garland drain has been suitably designed and provided with 50% safety margin over the peak sudden rainfall. Sump with adequate capacity shall be allowed proper settling of silt material.
III	Drills should be wet operated or with dust extractors & controlled blasting should be practiced.	All drilling operation is being carried out with wet drilling. Controlled Blasting is carried out under the supervision of statutory qualified person in day time. Danger display boards are located at major approach roads to make the villagers aware about the danger zone.
IV	Crusher should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emissions from crushing operations, haulage roads, transfer points etc.	Crusher is provided with adequate capacity of bag filter. Water sprinkling system has also been provided at crusher, screens & transfer points. Haul roads are kept in wet conditions round the clock by water sprinklers
V	Plantation involving a total area of 235 ha should also be raised along the roads, dump sites etc. This includes a wide green belt along the periphery of the ML area, OB dump & along roadside within the lease area by planting native plant series in consultation with local DFO/ Agriculture Department. At least 2500 plant species /ha should be planted.	Plantation is carried out along the roads, dumpsites and on reclaimed areas. Plantation details with survival percentage and area covered as under ; Total Area (Ha.): 460.310 Total Plantation : 249307 Survival Rate : 80% % of Area Covered : 27.08
VI	OB generated shall be used to backfill the balance 304 ha of mined out area. A progressive Mine Closure Plan shall be implemented reclamation & rehabilitation programme of the mined out area shall be done.	70995 CuM OB generated during the period of April – September 2015. The mined out area has been rehabilitated by back filling and subsequently spreading of top soil and carrying out the plantation. 4.0 Ha area is backfilled

		during this period. Some of the area has been rehabilitated by converting the mine pit into a water reservoir. The reclamation & rehabilitation of the abandoned mine pits have been carried out in line with progressive mine closure plan.
VII	Mining shall not intersect ground water in any part of the mine area.	The mining operation will not intersect the ground water table till the end of mine life.
VIII	Regular monitoring of ground water level & quality should be carried out by establishing a network of existing wells & constructing new peizometers at suitable locations in project area. The frequency of monitoring should be minimum four times a year - January, pre-monsoon (April/May, monsoon (August), post monsoon (November), & winter (January) seasons for ground water level & in May for quality. Data generated from groundwater regime monitoring will be submitted to CGWB, Regional Office on an annual basis.	Regular monitoring of ground water level & its quality is being carried out. The analysis report result will within the prescribed Standard. Last Report submitted on dated 05.05.2015 vide letter no. JRP/EC/CGWB/2015 - 16.
IX	Digital processing of the entire lease area using remote sensing techniques should be done regularly once in 3 years for monitoring land use pattern & report submitted to MOEF & its Regional Office at Bhopal.	Study has been carried out by external agency and report is submitted to MoEF, CPCB & MPPCB vide our latter no. JAL / EC / MoEF/2013 – 14 / 5107 dated 20.05.2013.
X	A detailed mine closure plan should be submitted to MOEF five years in advance for approval.	It is a running Mine and Progressive Mine closure plan has been approved by IBM, Nagpur.
XI	Consent to Operate should be obtained from the SPCB before commencing production.	Consent to operate granted by MPPCB vide their letter no. 5587/ TS/ MPPCB/ Mine / 2005 dated 22.03.2005 and subsequently consent is getting renewed and valid up to 31.12.2016.
XII	STP facilities shall be installed in the township & treated effluents recycled for use within the colony & for green belt development.	Two nos. of STP having capacity of 800 KLD & 400 KLD were installed in township & the waste water is treated up to tertiary level (Activated Carbon Filter, Pressure Sand Filter & Ozone treatment). STP with tertiary treatment system equipped with ozonator was installed and in operation. Treated water is used in horticulture.
XIII	The proponent shall earmark a separate fund of 1% with a minimum of Rs. 50,000/- of the total project cost for eco- development measures including community welfare measures in the project area. The amount shall be deposited by the company in a separate account within three months to be maintained by the Madhya Pradesh State Pollution Control Board. The action plan in this regard shall be submitted to the SPCB as well as to MOEF & its Regional Office at Bhopal within three months of issue of this letter. After approval of the action plan by the SPCB, the amount deposited shall be released in two installments to the project authorities based on progress of implementation. The SPCB shall ensure that implementation of the action plan for eco-development measures is completed within two years from date of its approval by SPCB. Further, the interest accrued during this period on the amount deposited by the proponent with the SPCB shall be ploughed back to the same eco-development fund.	Expenditure during the period April – September 2015 Rs.49.35 Lacs in eco-development measures and community welfare under Comprehensive Rural Development Programme (CRDP).

B. General Conditions

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I	No change in technology & scope of working should be made without prior approval of the Ministry of Environment & Forest.	Noted and Agreed																																																																																																														
II	No change in the calendar plan including excavation, quantum of limestone, waste / OB dumps should be made.	Noted and Agreed																																																																																																														
III	Four ambient air quality monitoring stations should be established in the core zone as well as buffer zone for SPM, RPM, NO _x & SO ₂ . Location of the ambient air quality stations should be decided on meteorological data, topographical features & environmentally & ecologically sensitive targets & the frequency of monitoring should be undertaken in consultation with State Pollution Control Board.	<p>Regular monitoring carried out of Ambient Air quality of Core zone as well as buffer zone six monthly average monitoring report given below;</p> <p>Core Zone:</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th colspan="4">Location</th> </tr> <tr> <th></th> <th>Near Drilling Site</th> <th>Near L/S Loading Site</th> <th>Near Haulage Road</th> <th>Near Water Pump Station</th> </tr> </thead> <tbody> <tr> <td>PM_{2.5} (µg/m³)</td> <td>33-41</td> <td>34-41</td> <td>32-41</td> <td>23-41</td> </tr> <tr> <td>PM₁₀ (µg/m³)</td> <td>50-56</td> <td>53-57</td> <td>50-55</td> <td>45-55</td> </tr> <tr> <td>SO₂ (µg/m³)</td> <td>7-10</td> <td>7-15</td> <td>7-11</td> <td>7-11</td> </tr> <tr> <td>NO_x (µg/m³)</td> <td>14-21</td> <td>13-17</td> <td>13-19</td> <td>11-17</td> </tr> <tr> <td>CO (µg/m³)</td> <td>122-206</td> <td>116-212</td> <td>115-167</td> <td>111-247</td> </tr> <tr> <td>O₃ (µg/m³)</td> <td>2-3</td> <td>2-3</td> <td>2-4</td> <td>2-3</td> </tr> <tr> <td>Pb (µg/m³)</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> <tr> <td>NH₃ (µg/m³)</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> <tr> <td>C₆H₆ (µg/m³)</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> <tr> <td>BaP (ng/m³)</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> <tr> <td>As (ng/m³)</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> <tr> <td>Ni (ng/m³)</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> <td>BDL</td> </tr> </tbody> </table> <p>Buffer Zone:</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th colspan="4">Location</th> </tr> <tr> <th></th> <th>Near Garhwa</th> <th>Near Kachur</th> <th>Near Madheya pur</th> <th>Near Sakarwat pur</th> </tr> </thead> <tbody> <tr> <td>PM_{2.5} (µg/m³)</td> <td>20-28</td> <td>19-25</td> <td>19-24</td> <td>19-25</td> </tr> <tr> <td>PM₁₀ (µg/m³)</td> <td>36-45</td> <td>30-43</td> <td>30-45</td> <td>32-43</td> </tr> <tr> <td>SO₂ (µg/m³)</td> <td>4-6</td> <td>5-6</td> <td>4-7</td> <td>5-8</td> </tr> <tr> <td>NO_x (µg/m³)</td> <td>10-17</td> <td>10-12</td> <td>11-14</td> <td>9-13</td> </tr> <tr> <td>CO (µg/m³)</td> <td>97-178</td> <td>117-160</td> <td>93-205</td> <td>98-158</td> </tr> <tr> <td>O₃ (µg/m³)</td> <td>2-4</td> <td>2-3</td> <td>2-4</td> <td>2-4</td> </tr> </tbody> </table>	Parameter	Location					Near Drilling Site	Near L/S Loading Site	Near Haulage Road	Near Water Pump Station	PM _{2.5} (µg/m ³)	33-41	34-41	32-41	23-41	PM ₁₀ (µg/m ³)	50-56	53-57	50-55	45-55	SO ₂ (µg/m ³)	7-10	7-15	7-11	7-11	NO _x (µg/m ³)	14-21	13-17	13-19	11-17	CO (µg/m ³)	122-206	116-212	115-167	111-247	O ₃ (µg/m ³)	2-3	2-3	2-4	2-3	Pb (µg/m ³)	BDL	BDL	BDL	BDL	NH ₃ (µg/m ³)	BDL	BDL	BDL	BDL	C ₆ H ₆ (µg/m ³)	BDL	BDL	BDL	BDL	BaP (ng/m ³)	BDL	BDL	BDL	BDL	As (ng/m ³)	BDL	BDL	BDL	BDL	Ni (ng/m ³)	BDL	BDL	BDL	BDL	Parameter	Location					Near Garhwa	Near Kachur	Near Madheya pur	Near Sakarwat pur	PM _{2.5} (µg/m ³)	20-28	19-25	19-24	19-25	PM ₁₀ (µg/m ³)	36-45	30-43	30-45	32-43	SO ₂ (µg/m ³)	4-6	5-6	4-7	5-8	NO _x (µg/m ³)	10-17	10-12	11-14	9-13	CO (µg/m ³)	97-178	117-160	93-205	98-158	O ₃ (µg/m ³)	2-4	2-3	2-4	2-4
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IV	Data on Environmental Quality should be regularly submitted to the Ministry including its Regional Office at Bhopal & the State Pollution Control Board / Central Pollution Control Board once in six months.	Data on environmental quality has been regularly submitted to the MoEF including its Regional Office at Bhopal, State Pollution Control Board and Central Pollution Control Board, once in six months. Monitored environmental data of last six month have already been submitted vide our letter no. JAL/EC/MoEF/2015 – 16 dated May 23, 2015.																																																														
V	Adequate measures for control of fugitive emissions should be undertaken such as water spraying arrangements on haul roads, loading & unloading points, & transportation of minerals etc. Fugitive dust emissions from all sourced should be regularly monitored & data recorded properly.	Measures have been taken for control of fugitive emissions, such as water spraying arrangements through tankers for dust suppression on haul roads loading and unloading points and by providing covers on conveyors belts for transportation of minerals.																																																														
VI	Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting & drilling operations, operations of HEMM etc., should be provided with ear plugs / muffs.	Adequate measures have been adopted for control of noise levels and is maintained below 85 dB (A) in the work environment. Workman engaged in drilling & blasting operation and operators of HEMM have been provided with ear plugs/muffs.																																																														
VII	Industrial wastewater (workshop & wastewater from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 th May 1993 & 31 st December 1993 or as amended from time to time. Oil & grease trap should be installed before discharge of effluents from the workshop.	No wastewater is generated from the mining operation. The waste water generated from Mine workshop is passed through oil and grease separator and settling tank and clean water conform to the standards. The collected water is being used for dust suppression on haul roads.																																																														
VIII	Personnel working in dusty areas should wear protective respirator devices & they should also be provided with adequate trainings & information on safety & health aspects. Occupational health surveillance programme of the workers should be undertaken periodically & corrective measures taken, if required.	Personnel working in dusty areas have been provided protective respiratory devices and also they have been provided with adequate training and awareness on safety and health aspects. Occupational health surveillance programme of the workers have been undertaken periodically and corrective measures are taken, if required. The details of occupational health surveillance program conducted during last six months as under.																																																														
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	& analyzed either through an in-house environmental laboratory established with adequate number & type of pollution monitoring & analysis equipment or got analyzed through an approved laboratory under the Environment (Protection) Rules 1986 in consultation with the State Pollution Control Board.	parameter are being carried out in-house in well equipped environmental laboratory run under experienced and well trained environment personal.
X	A separate environmental management cell with suitable qualified personnel should be set under the control of a senior executive who will report directly to the head of the Organization.	A separate environmental management cell with suitable personnel under the control of a senior executive has already been established.
XI	The funds earmarked for environmental protection measures should be kept in separate account & not diverted for any other purpose. Year-wise expenditure should be reported to Ministry of Environment & Forest.	The expenditure incurred for environmental protection measures from April – September 2015 is Rs 18.95 Lacs.
XII	The project authorities should inform to the Regional Office located at Bhopal regarding date of financial closures & final approval of the project by the concerned authorities & the date of start of land development work.	Noted. The mine is in operation - since 22.03.2005
XIII	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated environmental conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	Noted and Agreed
XIV	A copy of the clearance, letter should be marked to the concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.	Environment Clearance letter sent to respective Panchayat and receipt taken.
XV	The State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Center & the Collector's/Tehsildar's Office for 30 days.	Environment Clearance letter copy sent to respective deptt. and receipts are taken.
XVI	The project authorities should advertise at least in two newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within 7 days of issuance of the clearance letter informing that the project has been accorded environmental clearance & a copy of the clearance letter is available with the State Pollution Control Board & may also be seen at website of the Ministry of Environment & Forest at http://envfor.nic.in .	Complied. The mine is already in operation since 22.03.2005.
3.	The Ministry or any other component authority may stipulate any further additional condition for environmental protection.	Noted and Agreed
4.	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance.	Noted and Agreed
5.	The above conditions will be enforced, inter-alia, under the provision of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act. 1986 & the Public Liability Insurance Act 1991 alongwith their amendments & rules.	Noted and Agreed