

Name of the Project: North – North Naubasta Limestone Mine (ML – 2) (A unit of M/s Jaiprakash Associates Limited) of Mining Capacity 1.85 MTPA at villages Naubasta, Sumeda, Atrauli and Garhwa Tehsil Huzur District Rewa (M.P.)

Project Code:

Clearance Letter No. : MoEF vide letter No: - J-11015/423/2005-IA-II (M) Dated 18th May 2006

Period of Compliance Report: April 2015 – September 2015

A. SPECIFIC CONDITIONS

No.	Conditions	Status of Compliance
I.	The maximum combined production from both the mining lease (ML – 1 470.941 ha. and ML – 2: 183.937 ha.) shall not exceed 4.0 million tones per annum.	No Production will be done above the 4.0 MTPA on Both Mines.
II.	The project proponent shall ensure that maximum production of limestone from all the six mining lease should not exceed 9.6 million tones per annum.	Noted and Agreed
III.	Top soil should be stacked properly with adequate measures at earmarked site. It should be used for reclamation and rehabilitation of mined out area.	100265 Cum of top soil is generated during the period of April – September 2015. Top soil is being temporarily stored at earmarked site & used for land reclamation and plantation.
IV.	The over burden generated shall be concurrently backfilled and there shall not be any external over burden dump in the mine lease area.	47330 cum of OB generated during period of April – September 2015. OB is stacked at earmarked dump site. OB generated is accommodated in temporary dump site. Backfilling of mined out area has commenced. Garland drains along with the sedimentation pit at the corner have been provided around the excavation to prevent storm water from catchment area to come in contact with freshly excavated area. Drains are provided at the toe of the dump
V.	Plantation shall be raised in an area of 177.687 ha by planting the native species around the ML area, roads etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2500 plants per ha.	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.): 171.362 Total Plantation : 72871 Survival Rate : 80% % of Area Covered : 21.26
VI.	The mining operation shall not intersect groundwater table. Prior approval of the Ministry of Environment & Forest and Central Ground Water Authority shall be obtained for mining below water table.	The mining operation will not intersect the ground water table till the end of mine life.
VII.	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil and mineral dumps. The water so collected should be utilized for watering	In order to arrest silt and sedimentation flow from the mining operation, check dams/siltation ponds have been constructed. The collected water has been used for

	<p>the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after monsoon and maintained properly.</p> <p>Garland drain (size, gradient & length) shall be constructed for both mine pit and for waste dump and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper setting of silt materials. Sedimentation pit should be constructed at the corners of the garland drains and desilted at regular intervals.</p>	<p>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 capacity with adequate retention period has been provided to allow proper settling of silt material. De-silting of garland drains and sump is being done before rainy season.</p>
VIII.	<p>Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run – off and siltation should be based on the rain fall data.</p>	<p>As such no OB dump exists in mine area .Concurrently back filling is done in mine out area. No retaining wall is required.</p>
IX.	<p>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.</p>	<p>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.</p>
X.	<p>The project authority should implement suitable water conservations measures to augment ground water resources in the area in consultation with Regional Director, Central Ground Water Board.</p>	<p>Conservation measures are taken for augmentation of ground water by constructing the water harvesting structures (Anicuts) in nearby nalals.</p>
XI.	<p>Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, CGWB.</p>	<p>Noted and planned long terms rain water harvesting by converting the old mine pits into water reservoirs.</p>
XII.	<p>Drills should be operated with dust extractors or should be equipped with water injecting system.</p>	<p>All drilling operation is being carried out with wet drilling system.</p>
XIII.	<p>Permission from the component authority for drawal of ground water, if any required for the project may be obtained.</p>	<p>No ground water withdrawal is required as rain water collected in old mined out pit is used for dust suppression and plantation throughout the year. Hence, no need of permission is required from CGWA/CGWB.</p>
XIV.	<p>Vehicular emission should be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles should be covered with a tarpaulin and shall not be overloaded.</p>	<p>All measures as stipulated are being adopted to control the vehicular emission during transportation.</p>
XV.	<p>Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.</p>	<p>Controlled blasting will be carried out to minimize the ground vibration and to arrest fly rock. Blasting shall be carried out only during day time with fixed timing.</p>
XVI.	<p>Crusher should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emissions from crushing operations, loading , unloading areas including all the transfer points should be also have efficient dust control arrangements. These should be</p>	<p>Crusher is provided with adequate capacity bag filters. 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.</p>

	properly maintained and operated.	
XVII.	Consent to operate should be obtained from SPCB before starting production from this mine.	Consent to operate has been granted by MPPCB vide letter No. 9517 & 9515 /TS/Mine/MPPCB/2006 Dtd. 07.12.2006 and subsequently renewal and valid up to 30.11.2018.
XVIII.	Sewage treatment plant should be installed for the colony. ETP should also provided for workshop and mineral separation plant wastewater.	Sewage treatment plant already exists in township of cement plant. A centralized Auto workshop is established at our plant site equipped with oil & grease trap for treatment of waste water.
XIX.	A Final mine closure plan along with details of Corpus found should be submitted to the Ministry of Environment & Forest 5 years in advance of final mine closure for approval.	Noted Agreed

B. General Conditions

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I.	No change in mining 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.	Conservation measures for protection of flora & fauna in the core & buffer zone should be drawn up in consultation with the local forest department and experts.	Noted and Agreed																																																												
IV.	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>PM₂₁₀ (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> </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 ₂₁₀ (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
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		Ni (ng/m3)	BDL	BDL	BDL	BDL
		Buffer Zone:				
		Parameter	Location			
			Near Garhwa	Near Kachur	Near Madheyapur	Near Sak Arw at
		PM _{2.5} (µg/m3)	20-28	19-25	19-24	19-25
		PM _{2.5} (µg/m3)	36-45	30-43	30-45	32-43
		SO ₂ (µg/m3)	4-6	5-6	4-7	5-8
		NO _x (µg/m3)	10-17	10-12	11-14	9-13
		CO (µg/m3)	97-178	117-160	93-205	98-15
		O ₃ (µg/m3)	2-4	2-3	2-4	2-4
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		As (ng/m3)	BDL	BDL	BDL	BDL
		Ni (ng/m3)	BDL	BDL	BDL	BDL
V.	Data on ambient air quality (RPM, SPM, SO ₂ , NO _x and CO) 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. The last six month have already been submitted vide our letter no JAL/EC/MoEF/2015 – 16 dated May 23 th , 2015.				
VI.	Fugitive dust emission from all the source should be controlled regularly monitored and data recorded properly. Water spraying arrangements on haul roads , wagon loading , dumps , loading & unloading points should be provided and properly maintained.	Adequate measures are taken for control of Fugitive dust emission by sprinkling of water on haul roads, discharge points and covers on conveyor belts.				
VII.	Adequate measures should be taken for control of noise levels below within prescribed standards. 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 blasting and drilling operations, operations of HEMM etc., have been provided with ear plugs/muffs.				
VIII.	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. Analysis data are will within the Prescribed limit.				

IX.	Acid mine water, if any has to be treated and disposed of after conforming to the standards prescribed the competent authorized.	No generation of acid mine water in limestone mines.																																																								
X.	Personnel working in dusty areas should wear protective respirator devices & they should also be provided with adequate trainings & information on safety & health aspects.	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.																																																								
XI.	Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to radioactive mineral dust and take corrective measures, if needed. The same programme may be extended to adjoining villages also.	<p>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.</p> <p>The details of occupational health surveillance program conducted during last six months as under.</p> <p style="text-align: center;">OCCUPATIONAL HEALTH RECORD MEDICAL EXAMINATION REPORT APRIL - SEPTEMBER - 2015</p> <table border="1"> <thead> <tr> <th>Particulars</th> <th>Apr</th> <th>May</th> <th>Jun</th> <th>Jul</th> <th>Aug</th> <th>Sep</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>PFT</td> <td>118</td> <td>80</td> <td>101</td> <td>143</td> <td>91</td> <td>105</td> <td>638</td> </tr> <tr> <td>AUDIOMETRY</td> <td>100</td> <td>74</td> <td>92</td> <td>125</td> <td>89</td> <td>94</td> <td>574</td> </tr> <tr> <td>EYE TEST</td> <td>32</td> <td>40</td> <td>31</td> <td>25</td> <td>38</td> <td>21</td> <td>187</td> </tr> <tr> <td>MSD</td> <td>43</td> <td>45</td> <td>35</td> <td>83</td> <td>42</td> <td>55</td> <td>303</td> </tr> <tr> <td>DERMATITIS</td> <td>49</td> <td>28</td> <td>37</td> <td>68</td> <td>26</td> <td>55</td> <td>263</td> </tr> <tr> <td>Total</td> <td>342</td> <td>267</td> <td>296</td> <td>444</td> <td>286</td> <td>330</td> <td>1965</td> </tr> </tbody> </table>	Particulars	Apr	May	Jun	Jul	Aug	Sep	Total	PFT	118	80	101	143	91	105	638	AUDIOMETRY	100	74	92	125	89	94	574	EYE TEST	32	40	31	25	38	21	187	MSD	43	45	35	83	42	55	303	DERMATITIS	49	28	37	68	26	55	263	Total	342	267	296	444	286	330	1965
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XII.	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.																																																								
XIII.	The funds earmarked for environmental protection measures should be kept in separate account & should not be diverted for other purpose. Year-wise expenditure should be reported to Regional Office, Bhopal of the MoEF and to the Ministry.	The expenditure incurred for Environment protection measures for the period April – September 2015 is Rs 6.75 Lacs.																																																								
XIV	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																																																								
XV.	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.																																																								
XVI.	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 19.12.2006.																																																								
XVII.	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.																																																								
XVIII.	The project authorities should advertise at least in two newspapers widely circulated around the project, one of which shall be in the vernacular	Complied. The mine is already in operation since 19.12.2006.																																																								

	<p>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.</p>	
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