



Compliance to Environmental Conditions for 2.50 MTPA of Sasti OCP, WCL MoEF&CC *vide* letter No. J-11015/435/2006.IA,II (M) dated 17.05.2007)

S.N.	Conditions stipulated by MoEF& CC, Govt. of India	Project Proponent's ATR/Compliance Status
A	Specific Conditions	
(i)	Mining shall be carried out as per statuette at a safe distance from the Gouri nallah / Wardha River flowing close to the lease boundary.	Proposed nallah diversion of Gouri nallah will be carried out with justification and due permission/ approval from the concerned authority/ department of state government. This design will be with due consideration of safety and sustainability.
(ii)	The embankment to be constructed along the seasonal nallah shall be of suitable dimensions and stabilised with plantation so as to withstand the peak water flow and prevent mine inundation.	
(iii)	Topsoil shall be stacked properly with proper slope at earmarked site (s) and should not be kept active and shall be used for reclamation and development of green belt.	Top soil will continued to be stacked properly and concurrently be used in the reclamation and development of green belt, OB Dumps, etc. In future as well.
(iv)	OB should be stacked at the earmarked five external OB dump site within ML area which shall be a maximum height of 60 m only and consist of four benches of 15 m each. The ultimate slope of the dump shall not exceed 28 degree. Monitoring and management of reclaimed dumpsite should continue until the	OB will be stacked at the earmarked external OB dump site within ML area. The ultimate slope of the dump will not exceed 28 degree. Monitoring and management of reclaimed dumpsite shall continue until the vegetation becomes self-sustaining.

	vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forest and its Regional office located at Bhopal on an yearly basis.	
(v)	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly. Garland drains (size gradient and length) and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provided adequate retention period to allow proper settling of silt material.	<p>Settling / sedimentation pond of appropriate size has been constructed to treat the industrial (Mine activity area) effluent including water pumped out from mine considering peak discharge. The water so treated is being used within the mine premises for dust suppression, watering of HEMM & FOR PLANTATION, Industrial use, fire fighting..</p> <p>Garland drains of appropriate different sizes of 3.00x2.00, 2.00x1.5, & 1.5x1.00mtr. for a total length of 12235.00mtr.have been provided along the periphery of excavated area as well as OBD. Desilting is being done every year before onset of monsoon.</p> <p>Further construction of Garland drains will be taken up as per requirement of mine with due regards to safety.</p>
(vi)	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.	Retaining wall of proper dimension have been constructed at the toe of OB Dumps which are adjacent to coal transport roads. The Dumps are also thickly planted on top as well as on slope. The afforestation have become so dense and self sustaining that the side slope is not at all visible. The plants have attained the height of approx, 9 to 10 mtrs. In the present operating portion of mine specially benches, such retaining wall is not required. More over cross drainage in OB benches have been provided which carry all the silts & sediments

		ultimately to mine sump provided at the floor of seam. The sump capacity is sufficient enough to allow settlement of suspended matter significantly and only supernatant water is pumped out on surface.
(vii)	Drills should be wet operated only.	Drills will be wet operated only.
(viii)	Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.	Controlled blasting is being done as per scientific investigations for design of controlled blasting pattern with SME explosives at Sasti Expansion Opencast mine done by CSIR- Central Institute of Mining and Fuel Research.
(ix)	High efficiency bag filters / water sprinkling system to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc. shall be installed and operated effectively at all times of operation.	Adequate Fixed type water sprinklers are provided in & around C.H.P. Weigh Bridges, coal transport roads, transfer points etc. as per direction of M.P.C.B., Chandrapur. They are being properly maintained & operated. Tyre wash system is proposed to be installed in FY 2023-24 for control of fugitive dust along with 5 nos. Trolley mounted mist fogging system. Further augmentation of sprinkling system shall be done as per requirement after expansion of mine.
(x)	An area not less than 451.65 ha shall be brought under afforestation which includes reclaimed external OB dump (235.30 ha), backfilled area (166.35 ha), along ML boundary, along roads & infrastructure, green belt (50 ha) and area in township located outside the lease by planting native species in consultation with the local DFO/ Agriculture Department. The density of	

	the trees should be around 2500 plants per ha.																																																																			
(xi)	A Progressive Mine Closure Plan shall be implemented by reclamation of quarry area of which 166.35 Ha shall be backfilled and afforested by planting native plant species in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2500 plants per ha. The balance 63 ha of decoaled void which is being converted into a water reservoir, shall be gently sloped along the upper benches, terraced and reclaimed with plantation. The outer periphery of the water body shall be fenced.	<div>It is being done. Total Plantation of 5.15 lakhs done in Sasti OCM in 169.15 Ha. 20.75 Ha of backfilled area has been bioogically reclaimed.</div> <table><tr><th>Sr no.</th><th>Year</th><th>Plantation (nos.)</th><th>Area (Ha)</th><th>Species</th></tr><tr><td>1</td><td>1993-94</td><td>47425</td><td>9.48</td><td rowspan="15">Neem, Sissoo, Gulmohar, Mango, Amla, Jamun, Soniya, Bija, Maruk, Kavath, Khair, Karanj, Kadamba, Siras, Bamboo, Arjun, Ber, etc.</td></tr><tr><td>2</td><td>1994-95</td><td>60000</td><td>12.0</td></tr><tr><td>3</td><td>1995-96</td><td>40000</td><td>8.0</td></tr><tr><td>4</td><td>1995-96</td><td>25000</td><td>5.0</td></tr><tr><td>5</td><td>1996-97</td><td>35000</td><td>14</td></tr><tr><td>6</td><td>1997-98</td><td>22000</td><td>8.0</td></tr><tr><td>7</td><td>1997-98</td><td>37000</td><td>14.4</td></tr><tr><td>8</td><td>1997-98</td><td>2000</td><td>0.4</td></tr><tr><td>9</td><td>1998-99</td><td>66575</td><td>26.17</td></tr><tr><td>10</td><td>1998-99</td><td>34000</td><td>13.50</td></tr><tr><td>11</td><td>1998-99</td><td>2000</td><td>0.70</td></tr><tr><td>12</td><td>1999-00</td><td>34000</td><td>13.30</td></tr><tr><td>13</td><td>2000-01</td><td>30000</td><td>12.0</td></tr><tr><td>14</td><td>2002-03</td><td>18750</td><td>7.50</td></tr><tr><td>15</td><td>2002-03</td><td>22250</td><td>8.90</td></tr></table>	Sr no.	Year	Plantation (nos.)	Area (Ha)	Species	1	1993-94	47425	9.48	Neem, Sissoo, Gulmohar, Mango, Amla, Jamun, Soniya, Bija, Maruk, Kavath, Khair, Karanj, Kadamba, Siras, Bamboo, Arjun, Ber, etc.	2	1994-95	60000	12.0	3	1995-96	40000	8.0	4	1995-96	25000	5.0	5	1996-97	35000	14	6	1997-98	22000	8.0	7	1997-98	37000	14.4	8	1997-98	2000	0.4	9	1998-99	66575	26.17	10	1998-99	34000	13.50	11	1998-99	2000	0.70	12	1999-00	34000	13.30	13	2000-01	30000	12.0	14	2002-03	18750	7.50	15	2002-03	22250	8.90
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(xii)	The company shall obtain prior approval of CGWA/ CGWB Regional Officer for use of groundwater if any, for mining operations.	CGWA NOC obtained vide CGWA/NOC/MIN/ORIG/2021/12462 valid upto 02/08/2023. Attached as Annexure B .																				
(xiii)	Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check up for occupational diseases and hearing impairment, if any, through an agency such as NIOH, Ahmedabad within a period of two years and the results reported to this Ministry and to DGMS.	<p>Periodical medical Examinations (P.M.E.) are carried out on compulsorily on each employee once in five years with the purpose of detecting and keeping records of diseases with specific importance to Coal Worker’s Pneumoconiosis. This is covered under Statute. During P.M.E., the candidates are subjected to a complete clinical examination, (including acuity of vision and hearing), radiological examination of chest and routine examination of blood and urine. In case some abnormality is detected during the course of the above examination, further investigations are carried out , as required.</p> <p>When a person is diagnosed as having a certain disease, he is referred to the concerned specialist for confirmation and initiation of treatment.</p> <p>IME/PME details for the last 5 years is as follows:</p>																				

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(xiv)	A Final mine Closure Plan along with details of Corpus Fund should be submitted immediately upon receipt of EC to the Ministry of Environment & Forests RO, Bhopal for approval.	Mine closure guidelines came into force from 27/08/2009, wherein detailed framework for Mine Closure Plan was described. Thereafter MCP for Sasti OC was prepared. As per ammended guidelines the competant authority to approve MCP of mines of Govt. Companies will be concerned board of Company. Following the directives of MoC, MCP of Sasti OC was prepared and the same was approved by WCL Board on 25/08/2012.																																	
(xv)	For monitoring land use pattern and for post mining land use, a time series of landuse maps,	Complied. Attached as ANNEXURE C.																																	

	based on satellite imagery (on a scale of 1:1500) of the core zone and buffer zone from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series) and the report submitted to MOEF and its Regional Officer at Bhopal.	
(xvi)	Consent to operate shall be obtained before expanding mining operations in the additional lease area and for the enhanced rated capacity after fulfilling the conditions imposed in the NOC.	Consent to operate has been obtained for validity up to 31/12/2023 for production capacity 2.5 MTPA .Attached as ANNEXURED .
B	General Conditions stipulated by MoEF& CC, Govt. of India	Project Proponent's Compliance Status
(i)	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	Noted. No change has been made.
(ii)	No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.	Noted.
(iii)	Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for SPM, RPM, SO ₂ and NO _x monitoring. Location of the stations should be decided based on the meteorological data,	Four ambient air quality monitoring stations are established as below :- 1. BSOA-1 – Filter plant at Gouri colony. 2. BSOA-2 - Sasti village.

	<p>topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.</p>	<p>3. BSOA-3 – SAM Office. 4. BSOA-4 – Area Store. Monitoring of SPM, RPM, SO₂ and NO_x is being done fortnightly. Monitoring reports for the month of October 2022 to March 2023 attached as Annexure E.</p>
(iv)	<p>Fugitive dust emissions (SPM and RPM) from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.</p>	<p>Adequate Fixed type water sprinklers are provided in & around C.H.P. Weigh Bridges, coal transport roads, transfer points etc. as per direction of M.P.C.B., Chandrapur. They are being properly maintained & operated. Details of Air pollution Control measures are given as below :-</p> <ol style="list-style-type: none"> 1. Fixed sprinklers are provided at 100 MT weighbridge - 08 Nos. 2. Fixed sprinklers are provided at Main CHP - 06 Nos. 3. Along Coal transportation road – 04 nos 4. Crusher unloading Area of both mini CHP & Main CHP are enclosed with CGI sheet and sprinklers are provided at crusher. 5. Concrete pavement provided at coal unloading Area and loading point at mini CHP. 6. Concrete pavement is provided at coal unloading Area and loading point at Main CHP.

		<p>7. Conveyor belt of mini CHP and main CHP are enclosed with CGI sheets along with sprinklers.</p> <p>8. Brooming and maintenance of coal transport road and weigh bridge road is done regularly.</p> <p>9. Spraying of water by 5 Nos. of Mobile Water Tankers (Hired-1 nos. Of 4 KL, Departmental – 2nos. of 28KL each and HOE contractor – 2 nos. Of 28 KL each)</p> <p>10. Concrete pavement is provided in w/s complex.</p> <p>11. Coal carrying Trucks are covered with Tarpaulin.</p> <p>12. Tarring of 06.00 km length of internal roads used by Coal Transportation trucks</p> <p>Fugitive dust concentration report enclosed as ANNEXURE – E</p>
(v)	Data on ambient air quality (SPM, RPM, SO ₂ and NO _x) should be regularly submitted to the ministry including its Regional office at Bhopal and to the State Pollution Control Board and the Central Pollution Control board once in six months.	<p>Ambient Air quality monitoring is being carried out as per GSR 742(E). The monitoring reports on quarterly basis are submitted to MOFF, and MPCB Chandrapur as per directives.</p> <p>Monitoring reports for the period October 2022 to March 2023 enclosed as ANNEXURE – E.</p>
(vi)	Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, of HEMM etc. should be	Regular monitoring through CMPDIL is being done on fortnightly basis and the results are within limits, Workers exposed to high noise level are provided with ear plugs/muffs. HEMM are properly maintained and kept in good condition. Noise proof cabins of HEMM

	provided with ear plugs / muffs.	are also provided. Sound level meter is used for measuring noise levels at work place and records are maintained.
(vii)	Industrial waste water (workshop and waste water 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 and 31 st December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.	<p>Sedimentation/Settling tank is provided in the mine. Mine water is pumped out after proper treatment. The results of mine water are within permissible limit. ETP along with oil skimmer is provided at workshop along with recycling system ETP sludge is properly stacked in the sludge yard as per the directives of MPCB.</p> <p>ETP – 150 KL / day.</p> <p>The effluent discharge are monitored as per GSR 742(E). Monitoring reports for the period October 2022 to march 2023 enclosed as ANNEXURE – E</p>
(viii)	Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.	Vehicular emissions are being monitored regularly and it is kept under control. Trucks used for transporting of coal are being covered with tarpaulins.
(iv)	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.	CMPDI Laboratory exists at Nagpur, which monitors all the mines of WCL.

(x)	<p>Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.</p>	<p>Protective respiratory devices are provided to workmen exposed to dust area. Workers are also regularly given training on safety and health aspects at VTC. (This is the statutory requirements under Mines Safety Act). Details of VTC traing is as follows:</p> <table><tr><th rowspan="2">Sr no.</th><th rowspan="2">Year</th><th colspan="2">VTV (nos.)</th></tr><tr><th>Departmental</th><th>Contractual</th></tr><tr><td>1</td><td>2017-18</td><td>122</td><td>149</td></tr><tr><td>2</td><td>2018-19</td><td>131</td><td>138</td></tr><tr><td>3</td><td>2019-20</td><td>124</td><td>101</td></tr><tr><td>4</td><td>2020-21</td><td>117</td><td>94</td></tr><tr><td>5</td><td>2021-22</td><td>117</td><td>71</td></tr></table> <p>Periodical Medical Examination of every worker is being done in every five years in our Area Hospital to detect any disease so that appropriate action can be taken up.</p> <p>PME of every person employed in mine is done in interval of five years at area hospital.</p> <p>PPE kit distribution details is as follows:</p>	Sr no.	Year	VTV (nos.)		Departmental	Contractual	1	2017-18	122	149	2	2018-19	131	138	3	2019-20	124	101	4	2020-21	117	94	5	2021-22	117	71
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(xi)	A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the company.	<p>At HQ, WCL- The cell is headed by GM (Env) reporting to Director (Technical). The team comprises of multi-disciplinary trained executive.</p> <p>At Area level – Area General Manager heads the Environment Department assisted by GM (opr), ANO(Env), & 1 Assistant Managers of Environment discipline.</p> <p>At Unit Level- Environment Management Cell is headed by Sub-Area Manager and assisted by Mine Manager, Project Nodal Officer (Env) at unit level.</p>																																					
(xii)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to this Ministry and its Regional Office	The funds earmarked for Environmental protection measures are kept in separate account and it is not used for any other purpose. Expenditure statements are shown in every six monthly compliance report which is being sent to MOEFCC.																																					

	at Bhopal.	Revenue expenditure till March 2023 = 521.508 lakhs. Capital expenditure till March 2023 = 671.73 lakhs
(xiii)	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office (s) of the Regional office by furnishing the requisite data/ information/ monitoring reports.	Noted.
(xiv)	A copy of E.C. will be marked to concerned panchayat / local VGP, if any, from whom any suggestion/ representation has been received while processing the proposal.	Clearance letter has been sent to concerned Gram Panchayat vide letter No. WCL/BA/SSA/910, dated : 26.06.2007.
(xv)	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office / Tehsildar's Office for 30 days.	Noted.
(xvi)	The Project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State	Complied. Attached as ANNEXURE F .

	Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at http://envfor.nic.in .	
3	The Ministry or any other competent authority may stipulate any further condition for environment protection.	Agreed.
4	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of Environment (Protection) Act. 1986.	Agreed.
5	The above conditions will be enforced inter-alia, under the provisions of the Water (prevention & control of pollution) Act 1974, the Air (prevention & control of pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Agreed.



Sub Area manager,
Sasti Sub Area