

**COMPLIANCE REPORT OF EC OF 0.40 MTPA AT GOURI DEEP OCP, GRANTED  
PERMISSION REF NO.J11015/338/2008-IA.II (M) Dated, 18TH FEBRUARY 2011**

**A) SPECIFIC CONDITIONS**

Sr.No.	Conditions	Compliance
(i)	Top soil shall be stacked properly with proper slope at earmarked site(s) and shall not be kept active and shall be used within a year of its generation for reclamation and development of green belt	Top soil excavated ahead of OB benches is being stacked at earmarked site. The total quantity of top soil is 1.23 Million cu.metre covering an area of 11.22 ha. The Top soil shall be used for reclamation of OB dump once it attains the maximum height.
(ii)	OB shall be stacked at the earmarked two external OB dumps . The ultimate slope of the dump shall not exceed 28°. Monitoring and management of reclaimed dump sites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on yearly basis.	Excavated OB is now being dumped entirely on surface as external OB Dump at earmarked site covering an area of 24.64 ha. The mine is in 3 <sup>rd</sup> year of operation only and the external OB dump is in active stage. The total OB removed till date is as given below:- 2012- 13 – 1.110 MM3 2013- 14 – 3.901 MM3 2014 – 15 – 1.605 mm3(up to 30.09.2014) Total – 6.617 MM3 The biological reclamation of external OB dump is yet to start as the same is in active stage. Once the maximum height is attained, the reclamation process will start firstly with technical reclamation like grading, making proper slope. Thereafter, biological reclamation will be taken up.
(iii)	Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly.	Catch drains / garland drains of appropriate sizes have been constructed all around the OB dump to arrest silt and sediments into natural water course. The cross sectional area of catch drain is 2.5 m x 1.2 m of length 1586 m. These catch drains are cleaned before onset of every monsoon. The balance catch drain of same size for about 400m length is proposed to be completed before onset of 2015 monsoon. A sump is constructed at the quarry floor with a capacity Of 1.2 Million gallons that collects all the silt and sediments from OB benches through "X" drainages. The sump capacity is adequate, considering sudden rain fall and it is sufficient to allow settlemnet of suspended particles. The water pumped out of the mine sump is used for water spraying in the mine premises, roads

		and also for Green belt development.
(iv)	Garland drains (size, gradient and length) and sump capacity shall 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 shall also provide adequate retention period to allow proper settling of silt material.	The garland drain around the quarry of about 1695 m has been constructed of cross sectional area of 1.5m x 0.5 m . The water collected in the floor sump of capacity 1.2 million gallons gets adequate retention time to allow proper setting of suspended materials. The supernatant water pumped out on surface and fed into surface sedimentation tank of size 31.50m X 23.00 m X 1.5m for secondary treatment. The treated water from surface sedimentation tank is used for watering the mine area and green belt development.
(v)	Dimension of the retaining wall at the top of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	At present, in order to arrest the run off and siltation Catch drains / garland drains of appropriate sizes have been constructed all around the OB dump to arrest silt and sediments into natural water course. The cross sectional area of catch drain is 2.5 m x 1.2 m of length 1586 m. These catch drains are cleaned before onset of every monsoon. The balance catch drain of same size for about 400m length is proposed to be completed before onset of 2015 monsoon. In addition green belt barrier has also been created and is proposed to cover the entire mine lease boundary facing the villlage with green belt barrier. This will also help in arresting flow of silt and sediment. The OB dump will be biologically reclaimed and stabilized with native species, as such there will be no siltation and flow of sediments from this dumps. As such construction of Toe wall may not be required. However, retaining wall may be constructed as per requirement.
(vi)	Mineral transportation from mine to Railway siding by road shall be by use of trucks of a minimum capacity of 20-T. All Internal roads and approach shall be black topped. A 3-tier Green belt shall e developed on both sides of the roads, Green belt shall be developed at the Railway siding.	Coal transportation of mine to consumer is carried out by road through trucks of 20-tonnes capacity. Internal roads/service roads of 669 m has been black topped. Out of the total 5.067 km of coal transportation road. The permanent section of 3.8 km- the black topping is in progress and will be complerted by March, 2015. The balance portion is haul road. Plantation has been started along the road with 14,000 Nos. Covering 1.05 km. The balance work is been taken up and will be completed in the coming year.

(vii)	High efficiency water sprinkling system provided to check fugitive emissions at the transfer points, haulage roads, etc shall be provided for crushing/loading operations for dust control at the CHP	<p>Adequate mitigative measures are being taken up to check fugitive emission in the project. 4 nos. of Rain gun / sprinklers are installed near weigh bridge and coal stock yard. Another, 5 are in the process of installation at the same place.</p> <p>Dust Suppression along haul road is being done by mobile tanker  18KL/ 1 no. : 6 trips per day  5KL/1 no. : 8 trips per day</p> <p>At present there is no coal crushing arrangement as such fugitive emission from crushing is Nil.</p>
(viii)	Drills shall be wet operated only.	Drills are wet operated.
(ix)	Controlled blasting shall be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.	Control blasting is being practiced as per DGMS permission.
(x)	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), Monsoon (August), Post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the Ministry of Environment & Forests and to the State Pollution Control Board quarterly within one month of monitoring.	The regular monitoring of ground water level and quality is being carried out by CMPDIL. Details are attached. Reports are also submitted regularly to the CGWA.
(xi)	No groundwater (bore well) shall be used for mining operations. Additional water if any shall be from mine pit water or from harvestng of rainwater. Rainwater harvesting structures including check dams for recharge of ground water shall be erected within and around the ML, in case monitoring of groundwater indicated a declining trend.	<p>No GW has been used for extraction of coal. Mine pumped out water is used for dust suppression of water. This area does not fall in the critical zone notified by CGWA. Regular GW monitoring is carried out as indicated in (x) compliance.</p> <p>Further, 2 no.s of bore wells at Goyegaon and Antaragaon village have been identified for monitoring through peizometers from December, 2014 quarter.</p> <p>Regarding Artificial recharging it is submitted that, one village pond at Paanchgaon village</p>

		<p>has been desilted for storing rainwater with enhanced capacity. It may be worthwhile to mention that, the mine is only in third year of its operation and from monitoring data, it is observed that there is no depletion of groundwater level in the vicinity of mine. However, it is proposed to have 3 Nos. of check dams ( Sand bags/ boulders of 1.2 m height) along the nullah flowing nearby Antaragaon village before onset of 2015 monsoon.</p> <p>The requirement of mine namely for dust suppression, green belt development etc are being made from mine pumped out water.</p>
(xii)	The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	Noted. Till date no such depletion is recorded or complaint received. However, on receipt of any requirement, assistance will be provided.
(xiii)	Sewage treatment plant of adequate capacity shall be installed in the existing colony. ETP shall also be provided for workshop and CHP waste water. Treated waste water meeting prescribed norms only shall be permitted to be discharged in to the natural water courses	<p>The existing requirement of residential accomodation is made at Sasti township and will be continued at same location. There is a full fledged domestic effluent treatment plant (DETP) of capacity 1 MLD in operation at Sasti township.</p> <p>One ETP is provided with a capacity of 75 cum /day for work shop. There is no CHP as such so no treatment is required. The monitoring is being continously carried out so as to ensure compliance of prescribed norms before discharging into natural water courses.</p>
(xiv)	The total area shall be brought under plantation at the time of mine closure shall not be less than 282.38 and shall include reclaimed backfilled area (33.72 ha), external OB dump area (94.12 ha), roads, colony, infrastructure, blasting zone and area for rationalization (154.38 ha) by planting native species found in the study area during pre-mining phase in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.	<p>The mine has started only in March, 2012 and it is now in its third year of operation. The project is yet to be completed. Progressive plantation work is being carried out.</p> <p>2013 rains- 19000 2014 rains- 8000 2015 rain- 4250 (proposed) 2016 rains- 4250 (proposed)</p> <p>The plantation will be of native species only. The density is 2500 plants/ ha. The afforestation is carried out through state expert forest agency.</p>
(xv)	A Progressive Mine Closure Plan shall be implemented by reclamation of 33.72 ha of total quarry area of 92.45 ha which is proposed to be backfilled and afforested by planting native plant species in consultation with the local DFO/Agriculture Department. The density	Noted. The mine closure plan has been duly approved and is being progressively implemented.

	of the trees shall be around 2500 plants per ha. The balance 58.73 ha of decoaled void is to be left as water body shall be gently sloped along the upper benches and stabilized with grass and plantation.					
(xvi)	Besides carrying out regular periodic health check up of their workers, 10% of the workers identified from work force 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, Ahmadabad within a period of one year and the results reported to this Ministry and to DGMS	<p>Every worker in the mine is examined in 5 years- up to the age of 45; the workers who are above 50 years are subjected to periodic medical examination at two and a half years. The details of PME undertaken since opening is given below:</p> <table border="0"> <tr> <td>Year</td> <td>Deptt.</td> </tr> <tr> <td>2013</td> <td>15 out of 72</td> </tr> </table> <p>As per the records available, no notifiable (as specified in the Mine's Rules, 1955) disease has been identified till date.</p>	Year	Deptt.	2013	15 out of 72
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(xx)	Land losers shall be compensated following norms as per the existing R& R Policy or more.	<p>Entire land has been acquired and R &amp; R has been already settled No house oustees involved.</p> <p>Total Land acquired physically= 334.43 ha  Total land holding= 297 Nos.  Employment provided=220 nos.  Monetary compensation given = 55 nos  Balance = 14 Nos  (out of which 2 cases are in process, 4 land oustees have not yet opted. 8 land oustees not eligible due to bifurcation of land after section 9 notification).  No house oustees involved.  Total land compensation paid =  Rs 28543853.39  Balance with tribunal = Rs 3524501.78</p>
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(xxi)	A detailed CSR Plan shall also be prepared for and in consultation with the local communities. CSR should be for a minimal Rs.5T/Coal/Year or 2.5% of the retain profit shall be implemented which is to be adjusted for depreciation in the value o the rupee over the life of the project. The activities undertaken for the specific village adopted a A detailed CSR plan shall also be prepared for and in consultation with the local communities. CSR should be for a minimal Rs 5/ tonne or 2.5% of the retained profit shall be implemented which is to be under CSR shall be displayed on the company wesite and updated at least once a year.	The CSR works carried out since opening in March, 2012 has been attached in the subsequent pages.
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(xxii)	For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1: 5000) 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 & CC and its Regional office at Bhopal.	The monitoring for reclamation and land use pattern on progressive basis has been undertaken and report for the year March, 2012 is enclosed for ready reference at Annexure A
(xxiii)	A Final Mine Closure Plan along with details of Corps Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Mine closure plan has been prepared and duly approved by WCL Board. The corpus fund has been deposited in escrow account.

## B. General Conditions

Sr.No.	Conditions	Compliance
(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	No change in technology envisaged.
(ii)	No change in the calendar plan including excavation, quantum of mineral coal and waste shall be made	No change in the calendar plan envisaged
(iii)	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RSPM, SO <sub>2</sub> and NO <sub>x</sub> . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in SPM and RSPM etc shall be carried out at least one in six months	Four ambient air quality monitoring stations are - (i) Manager Office (ii) Mutra village (iii) Goyegaon (iv) Antra village and it is consultation with MPCB, Chandrapur. It is being monitored by CMPDIL regularly. Quarter ending report is enclosed as Annexure - "B"
(iv)	Data on ambient air quality (SPM, RSPM, SO <sub>2</sub> and NO <sub>x</sub> and heavy metals such as Hg, As, Ni, Cr, etc) shall 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. Random verification of samples through analysis from independent laboratories recognized under the	It is being monitored by CMPDIL regularly. Quarter ending report <b>Dec 13 &amp; March.14</b> are enclosed. As Annexure - "B"

	EP Rules, 1986 shall be furnished as part of the compliance report	
(v)	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs	Adequate measures are taken for control of Noise pollution. Workers engaged in blasting and drilling operations, operation of HEMM, etc are provided with ear plugs/muffs.
(vi)	Industrial wastewater (workshop and wastewater from the mine) be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May 1993 and 31 <sup>st</sup> December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents	For proper treatment of Industrial wastewater- One ETP of capacity 75 cum./day has been provided in the workshop and One Sedimentation tank of size 31.50m X 23.00 m X 1.5m have been constructed near the mine for treatment of mine pumped out water. The quality of discharge is being monitored so as to ensure compliance of prescribed norms before discharging. Oil and grease traps installed at the WETP.
(vii)	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded	Coal transportation vehicle is covered with tarpaulins and optimally loaded. Vehicular emissions are kept under control PUC certificate of all light & passenger vehicles area taken.
(viii)	Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EP Rules, 1986	Monitoring of environmental quality parameters is done by CMPDIL, Nagpur. There is a full fledged NABL accredited Env. Laboratory of CMPDIL. The Monitoring is done through this laboratory at fortnightly interval. Presently the mine is procuring a portable testing kit for field monitoring of pH, TDS etc. is being procured to be completed before Mar. 2015.

(ix)	<p>Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.</p> <p>Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measure, if needed</p>	<p>Every worker in the mine is examined in 5 years- upto the age of 45; the workers who are above 50 years are subjected to periodioc medical examination at two and a half years. The details of PME undertaken since opening is given below:</p> <table border="1" data-bbox="914 342 1222 415"> <tr> <td>Year</td> <td>Deptt.</td> </tr> <tr> <td>2013</td> <td>15 out of 72</td> </tr> </table> <p>As per the records available, no notifiable (as specified in the Mine's Rules, 1955) disease has been identified till date.</p>	Year	Deptt.	2013	15 out of 72																		
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(x)	<p>A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company</p>	<p>The details of Environmental Managemnet setup riht from Project level to corporate level is stated as below:</p> <p>Sub Area Level</p> <p>Sr.Manager - 1  Asstt.Manager - 1  Engg.Asstt. - 1  Area Level -  ANO /Dy.GM - 1  Subordinate Eng. - 1  Clerk - 1</p> <p>Company Level</p> <p>GM(Env) - 2  CM(Env) - -  Manager - 2  Clerk - 3</p>																						
(xi)	<p>The funds earmarked for environmental protection measures should be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhopal</p>	<table border="1" data-bbox="954 1402 1466 1948"> <thead> <tr> <th>Description</th> <th>Expenditure (in Rs.)</th> </tr> </thead> <tbody> <tr> <td colspan="2"><b>Capital Head</b></td> </tr> <tr> <td>Reclamation</td> <td>Nil</td> </tr> <tr> <td>Air Pollution Control</td> <td>4.00 Lakhs</td> </tr> <tr> <td>Water Pollution Control</td> <td>23.18 Lakhs</td> </tr> <tr> <td>Total</td> <td>27.18 Lakhs</td> </tr> <tr> <td colspan="2"><b>Revenue Head</b></td> </tr> <tr> <td>Air &amp; Water consent Fees</td> <td>14.25 Lakhs</td> </tr> <tr> <td>Afforestation</td> <td>3.195 Lakhs</td> </tr> <tr> <td>Env. Monitoring by CMPDIL</td> <td>5.00 Lakh</td> </tr> <tr> <td>Air &amp; Water Control work</td> <td>2.78 Lakh</td> </tr> </tbody> </table>	Description	Expenditure (in Rs.)	<b>Capital Head</b>		Reclamation	Nil	Air Pollution Control	4.00 Lakhs	Water Pollution Control	23.18 Lakhs	Total	27.18 Lakhs	<b>Revenue Head</b>		Air & Water consent Fees	14.25 Lakhs	Afforestation	3.195 Lakhs	Env. Monitoring by CMPDIL	5.00 Lakh	Air & Water Control work	2.78 Lakh
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		Total	25.22 Lakh
(xii)	The Project authorities shall 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 Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>	Enclosed as Annexure - "C"	
(xiii)	A copy of the environmental clearance letter shall be marked to concerned Panchayat/ Zila Parishad/ Municipal Corporation or Urban Local Body/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website	The environment Clearance copy has been sent to panchayat vide letter dated 23/01/2013. Copy enclosed.	
(xiv)	A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days	Noted	
(xv)	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring date of environmental quality parameters (air, water, noise and soil) shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website	Complied	
(xvi)	The project proponent shall submit six monthly report on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MoEF & CC, the respective Zonal offices of CPCB and the SPCB.	Complied and will be continued.	
(xvii)	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(x)	Noted	

	of the Regional Office by furnishing the requisite data/ information/monitoring reports.	
(xviii)	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF & CC by e-mail	Complied and will be continued.
3	The Ministry or any other competent authority may stipulate any further condition for environmental protection.	Noted
4	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.	Noted
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. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.	Noted

Sr. Manager ( C)/ Nodel Officer  
Gouri Deep OC Project.

**Sub Area Manager,**  
**Gouri Deep OC Project.**

