

**WESTERN COALFIELDS LIMITED
(MINIRATNA COMPANY)**

**SIX MONTHLY ENVIRONMENTAL
COMPLIANCE REPORT
(From 01/10/2022 to 31/03/2023)**

IN RESPECT OF

**MAKARDHOKRA-II OPEN CAST
PROJECT**

**UMRER SUB AREA
UMRER AREA**

**Compliance of Environmental clearance conditions in respect of proposed of
Makardhokda II (EXPN.) OC project of WCL as on 31/03/2023**

Ref: MOEF Environment Clearance Letter No. J-11015/276/2008 5-IA. (M)

Dated 10.02.2009 for 1.5 MTPA

S.N	Compliance Condition	Status
1	The embankment constructed along the river boundary shall be of suitable dimensions and stabilized with plantation so as to withstand the peak water flow and prevent mine inundation.	Complied. The embankment is constructed as per the provision of approved Mining Plan. The height of the embankment provided to protect the mine along its boundary has been kept 6.00 meters above the HFL of the river. The width of embankment has been kept 30.00 m which is sufficient to protect the mine from peak flow of the river.
2	OB shall be stacked at two earmarked external OB dumpsite(s) only. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites 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.	Complied. OB generated from Mine was stacked at OB dumps. Plantation is done on External OB dump covering an area of 28.92 Ha and the plantation has become self-sustaining.
3	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 utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly. 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.	Complied. Presently there are no active OB dumps. Plantation is done covering an area of 28.92 Ha and the plantation has become self-sustaining in which chances of siltation & sediment flows are very less. However, garland drains of sufficient size, gradient, and length to cater the need of catchment area have been provided around O.B. Dumps and along quarry area. Sufficient capacity of sump is provided to retain silt.
4	Dimension of the retaining wall at the toe of	Complied.

	the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	Presently there are no active OB dumps. On date, all inactive OB dumps are covered with vegetation which has become self-sustained. Chances of siltation & sediment flows are very less.
5	Crushers at the CHP shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.	Mine has been discontinued since Jan' 2017, so not applicable.
6	Drills shall be wet operated.	Mine has been discontinued since Jan' 2017, so not applicable.
7	The project authorities shall undertake repairing and tarring of roads used for mineral transportation.	Being complied. Coal and OB transportation has been stopped since Jan' 2017. Presently, Coal Transportation of route of Makardhokra- II OC mine is being used for the transportation of Coal from the adjacent mine i.e. Makardhokra-I OC mine. All coal transportation roads are CC roads.
8	Controlled blasting shall be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.	Mine has been discontinued since Jan' 2017, so not applicable.
9	A progressive afforestation plan shall be implemented covering an area of 170.26 ha, which includes reclaimed external OB dump (62.08 ha within the ML and 32.88 ha outside the mine in Umrer OCP), backfilled area (19.95 ha), along ML boundary, along roads and infrastructure 1 ha), embankment (32.50 ha) and along diverted nallah (9 ha) vacant land (12.50 ha) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Massive plantation shall be carried out in open spaces in and around the mine and avenue plantation along the main approach	Being complied. Till date, Undisturbed area of 11.50 Ha is brought under plantation. Plantation was also done on External OB dumps covering an area of 28.92 Ha and 22.0 Ha of backfilled area. Remaining area will be reclaimed with plantation as per EMP.

	roads to the mine.	
10	The backfilled quarry area of 19.95 ha shall be reclaimed with plantation and a void of 25.65 ha which is propose to be converted into a water body shall be gently sloped and the upper benches shall be terraced and stabilised with plantation/afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.	<p>Being Complied.</p> <p>Total Excavated area is 91.45 Ha. Out of 91.45 Ha of excavated land, 22.0 Ha of backfilled area is biologically reclaimed.</p> <p>Presently, OB generated from the Makardhokra-I OC mine is being backfilled in the decoaled area of Makardhokra-II OC mine.</p> <p>Remaining quarry area will be backfilled and reclaimed with plantation as per EMP. 25.65 ha of decoaled void will be left as water body which will be gently sloped and upper benches stabilized with plantation.</p>
11	An action Plan shall be prepared for protection of the plantation after the same has been taken over by the Company from the State Forest Agency after three year of their initial control. The cost for its maintenance shall be appropriately reflected in the cost of EMP.	<p>Complied.</p> <p>Plantation area taken over by the Company is being maintained properly.</p>
12	The company shall obtain approval of CGWA/CGWB Regional Office for use of groundwater if any, for mining operations.	<p>Not Applicable.</p> <p>Mining operations has been stopped. Presently, no ground water is being dewatered/ used.</p>
13	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 tot eh Central Pollution Control Board quarterly within one month of monitoring.	<p>Being complied.</p> <p>Regular monitoring of ground water level from existing wells at 34 locations of Buffer zone is being done four times a year i.e. during pre-monsoon (May), monsoon (August), post-monsoon (November), and winter (January).</p> <p>Quality of groundwater as per IS: 10500: 2012 is being analysed in Buffer zone once in a year.</p> <p>Ground water level and quality monitoring report is being sent to R.O., MoEF & CC, Nagpur and CGWA on regular basis.</p> <p>Copy of Ground water level and quality monitoring report is enclosed as Annexure-III.</p>

14	The company shall put up artificial groundwater recharge measures for augmentation of groundwater resource. The project authorities shall meet water requirement of nearby village (s) in case the village Wells go dry due to dewatering of the mine.	<p>Being complied.</p> <p>Augmentation of groundwater resources is under implementation. Mine water discharges are passing through nearby existing Nalah after sedimentation through sump meets the requirement of nearby villages and enhance the ground water resource. Till date, based on routine monitoring of groundwater there was no reported negative impact on the surrounding area ground water levels. However if there is any water shortage in future it will be supplemented by necessary arrangement. After reclamation of the mined out area, remaining void area will serves as water recharging structure.</p>
15	Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater.	Mine has been discontinued since Jan' 2017, so not applicable.
16	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 one year and the results reported to this Ministry and to DGMS.	<p>Not Applicable.</p> <p>Presently no manpower is being engaged in mining and allied operations.</p>
17	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 and its Regional office at Bhopal.	<p>Being complied.</p> <p>Digital processing of the entire lease area using Remote sensing technique is done every year by CMPDIL. Reports of which are available on WCL website. The same is submitted to Ministry of Environment, Forest and Climate Change/ Regional Office on regular basis.</p> <p>Land Restoration / Reclamation monitoring report of MKD-II mine based on satellite data for the year 2019 is enclosed as Annexure-IV.</p>
18	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests within six months from date of	<p>Being complied.</p> <p>Final mine closure plan will be submitted to MOEF&CC, 5 years in advance of final mine closure.</p>

	environmental clearance for approval.	The fund provision is part of the approved project cost. The Escrow Account has been opened and progressive balance as on 31/03/23 is Rs. 11,24,40,443.00																												
19	The project authorities shall in consultation with the panchayat of the local villages identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.	<p>Being complied.</p> <p>In every year area-wise detailed CSR plan is prepared after due consultation with local beneficiaries. Umrer Area has spent the following under CSR in last 13 years:</p> <table><tr><th>Year</th><th>Rs. in lakhs</th></tr><tr><td>2022-23</td><td>54.79</td></tr><tr><td>2021-22</td><td>46.84</td></tr><tr><td>2020-21</td><td>53.17</td></tr><tr><td>2019-20</td><td>64.80</td></tr><tr><td>2018-19</td><td>12.01</td></tr><tr><td>2017-18</td><td>15.84</td></tr><tr><td>2016-17</td><td>6.09</td></tr><tr><td>2015-16</td><td>8.46</td></tr><tr><td>2014-15</td><td>39.98</td></tr><tr><td>2013-14</td><td>216.88</td></tr><tr><td>2012-13</td><td>152.98</td></tr><tr><td>2011-12</td><td>85.80</td></tr><tr><td>2010-11</td><td>49.59</td></tr></table> <p>*CSR funds for the year 2015-16 and 2016-17 were diverted to Swaccha Bharat Abhiyan.</p> <p>The activities broadly include:</p> <ul style="list-style-type: none">• Construction of WBM and CC road at nearby villages• Construction of Well and Storage arrangement and pipe line for providing drinking water• Installation of RO plant at nearby villages and ZP schools.• Construction of Green Haat at village• Construction of Compound wall at ZP Schools.• Skill development training for nearby villagers.	Year	Rs. in lakhs	2022-23	54.79	2021-22	46.84	2020-21	53.17	2019-20	64.80	2018-19	12.01	2017-18	15.84	2016-17	6.09	2015-16	8.46	2014-15	39.98	2013-14	216.88	2012-13	152.98	2011-12	85.80	2010-11	49.59
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B	General Conditions																													
1	No change in mining technology and scope of working should be made without prior approval of the Ministry of environment and forests.	Mine has been discontinued since Jan’ 2017, so not applicable.																												

2	No change in the calendar plan including excavation, quantum of mineral coal and Waste shall be made.	Mine has been discontinued since Jan' 2017, so not applicable.
3	Four ambient air quality monitoring station shall be established in the core zone as well as in the buffer zone for monitoring SPM, RSPM, SO ₂ and NO _x and heavy metals such as Hg, As, Ni, Cr, etc. 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.	<p>Being complied.</p> <p>Four nos. ambient air quality monitoring stations have been established in the core zone as well as in the buffer zone for observation of RPM, SPM, SO₂ and NO₂, which are as follows.</p> <ul style="list-style-type: none"> • Near Manager office • SAM office • Colony (Near Pump House) • Near Kanwa Village <p>Monitoring Report is enclosed as Annexure-V</p>
4	Data on ambient air quality (SPM, RSPM, SO ₂ , NO _x and heavy metals such as Hg, As, Ni, Cr etc.) shall be regularly submitted to the Ministry including the regional office at Bhopal and to the state pollution control board and the central pollution control board once in six months.	<p>Being complied.</p> <p>Ambient air quality is being monitored as per the coal industry standards notified vide GSR 742(E) dated 25.9.2000 & reports are submitted to MOEF & CC (WZ) Nagpur & Maharashtra Pollution Control Board.</p> <p>Monitoring Report is enclosed as Annexure-V</p>
5	Fugitive dust emissions (SPM, RSPM, and heavy metals such as Hg, As, Ni, Cr etc.) from all the sources shall be controlled regularly monitored and the data recorded properly. Water spraying arrangement on haul roads wagon loading, dump tracks (loading and unloading) points should be provided and properly maintained.	<p>Not Applicable.</p> <p>Mine has been discontinued since Jan' 2017, so not applicable.</p>
6	Adequate measures shall be taken for control of noise level below 85 dB (A) in the work environment. Workers engaged in blasting and drilling operations, operations of HEMM, etc. shall be provided with the ear plugs/muffs.	<p>Not Applicable</p> <p>Mine has been discontinued since Jan' 2017, so not applicable.</p>
7	Industrial wastewater (workshop and West water from the mine) shall 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	<p>Not Applicable</p> <p>Mine has been discontinued since Jan' 2017, so not applicable.</p>

	1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.	
8	Environmental Quality monitoring (Air, Water, Soil) shall also include random verification of samples through analysis from independent laboratories recognized under the E(P)A Rules, 1986 and shall be furnished as part of the report.	Being complied. Regular Air, Water and Noise quality monitoring is being carried by CMPDIL. Copy of the same is enclosed as Annexure-V.
9	Vehicular emission shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins optimally loaded.	Not applicable Mine has been discontinued since Jan' 2017, so not applicable.
10	Environmental laboratory shall be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the state pollution control board.	Being complied. NABL certified Environment laboratory already existing at CMPDIL RI- IV Nagpur with adequate number and type of pollution monitoring and analyzes equipment headed by highly qualified engineers.
11	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. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures if needed.	Mine has been discontinued since Jan' 2017, so not applicable.
12	A separate environmental management cell with suitable qualified personnel shall be setup under the control of a Senior Executive, who will report directly to the Head of the Company.	Complied. The Environmental Management cell at corporate level is headed by GM (Env) and assisted by a multidisciplinary team of qualified and trained engineers under the control of Director (Tech.) At Area level, the cell is headed by Area General Manager, Umrer Area, assisted by Area Nodal Officer (Environment) Umrer Area, Project Officer/Sub Area Manager, Umrer Sub Area, Staff Officer (Civil), Umrer Area. At Project level, it is headed by Sub-Area Manager, Umrer Sub Area and assisted by Mine Manager/Safety

		Officer, Umrer Sub Area, Survey Officer, Umrer Sub Area and Nodal Officer (Environment) of the project.
13	The funds earmarked for environmental protection measures shall 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.	Agreed. The fund earmarked for environmental protection measures was not diverted for other purpose.
14	The Regional Officer of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities shall extend full co-operation to the office (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	It is being complied regularly.
15	A copy of environment clearance letter shall be marked to concerned panchayat/local NGO, if any, from whom any suggestion/ representation has been received while processing the proposal.	It is already complied.
16	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Officer for 30 days.	It is already complied.
17	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 web site of the Ministry of Environment & Forests at http://envfor.nic.in . The compliance status shall also be uploaded by the project authorities in their website so as to bring the same in the public domain. The data shall also be displayed at the entrance of the	It is already complied.

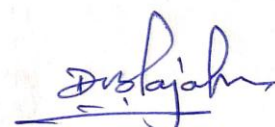
	project premises and mines office and in corporate office.	
III	The Ministry or any other competent authority may stipulate any further condition for environment protection.	Noted
IV	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986	Noted
V	The above conditions will be enforced inter-alia, under the provision of the Water (prevention & control of pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted



Sub Area Manager
Makardhokra-II OC
Umrer Sub Area



Colliery Manager
Makardhokra-II OC
Umrer Sub Area



Nodal officer (Env.)
Makardhokra-II OC
Umrer Sub Area