COMPLIANCE OF ENVIRONMENTAL CLEARANCE CONDITIONS

Bellora/Naigaon Deep Opencast Coal Mine Project (1.25MTPA). MOEF Environmental Clearance Letter No. J-11015/332/2009-IA.II(M) Dated 06/03/2012.

PERIOD: 01/04/2022 TO 30/09/2022

| <u>A)</u> | Specific Conditions | Compl | iance as on 3 | 30.09.2022 | | | |
|-----------|--|---|---------------|----------------------------|--|--|--|
| I | The peak production capacity of the project shall not exceed 1.25 MTPA without prior EC form this Ministry | As per the approved PR (Feb 2012), the life of the project worked out to 20 years for total coal reserve of 18.27 Milli tonne and removing total of 114.45 Million cum overburde. The mine has started the coal production in the year 01.04.2012. The details of coal and OB is given below: | | | | | |
| | | Sr. No. | Year | Coal Production (MT) | OB Removal (Mm3) | | |
| | | 1. | 2012 – 13 | 1.05 | 6.42 | | |
| | | 2. | 2013 –14 | 1.05 | 6.75 | | |
| | | 3. | 2014 –15 | 1.18 | 7.94 | | |
| | | 4. | 2015 – 16 | 1.20 | 3.03 | | |
| | | 5. | 2016 – 17 | 0.86 | 2.20 | | |
| | | 6. | 2017 – 18 | 0.15 | 0.51 | | |
| | | 7. | 2018 – 19 | NIL | NIL | | |
| | | 8. | 2019-20 | Nil | 0.86 | | |
| | | 9. | 2020-21 | Nil | 5.30 | | |
| | | 10. | 2021-22 | 0.942 | 7.887 | | |
| | | | Total | 5.49 | 33.01 | | |
| | | | | | | | |
| Ii | Further deepening of the mine in the dip side beyond 170 m shall be finalized in advance i.e. 3-5 years before the project reaches 170 m and for which a fresh (and prior) environmental clearance for further expansion in terms of additional land as well as reserves shall be taken from this Ministry. | After d will be | obtained. | oosal is finalize | | | |
| Iii | The embankment being constructed along the boundary of the mine along the River Wardha shall be of suitable dimensions taking into account the highest flood level based on past data so as to guard against mine inundation and stabilized with plantation using native species so as to with stand the peak water flow | River. Plantation is done along Embankment for stability and gr pitching also developed long back for slope stability dur rainy season. 91055 Nos. of plantation is done at OB dump a embankment. | | | above HFL ong Wardha ty and grass bility during | | |

| | and prevent mine inundation. The slope of the embankment shall at least 2:1 towards the ML. The height of the embankment shall be at least 3 m higher than the HFL of ht river. Stone pitching shall be done in the river front and in critical stretches to stenotherm the embankment during peak rainfall. | | | | | | | |
|----|--|--|---|--|--|----------------------------|---------------------------------|-------------------------------------|
| Iv | OB shall be stacked at earmarked 4 external OB deposits covering an area of | | | | ked place a 60m only. | as per I | PR, & the | e height of |
| | 223.97 ha and shall not exceed the max. height of 60 m | OB de | etails as c | on 30.09.2 | 022 | | | |
| | consisting of benches of 15 m each. The ultimate slope of the dump shall not exceed 28. Bamboo and other native species shall be planted on OB dumps for slope stability. | Sr. No. | Dump Name | Type of Soil (Black Cotton / Hard Soil) | External / Internal | Are a (in Ha) | Heigh t of Dump (in m) | Volum e (in Mm3) |
| | Monitoring and management of the reclaimed dumpsites | 1 | Dump No- 1 | Hard | Internal | 94 | 90 | 56.167 |
| | shall continue until the vegetation becomes self- | 2 | Dump No- 4 | Hard | External | 1.66 | 29 | 2.95 |
| | sustaining, compliance status shall be submitted to the | 3 | Dump No- 5 | Hard | External | 118 | 77 | 30.65 |
| | ministry of Environment & Forests and its Regional office | 4 | Dip- 1 | BC Soil | External | 9 | 15 | 1.35 |
| | located at Bhopal on yearly basis. | 5 | Dip- | Hard | External | 9 | 15 | 3.2 |
| | | 28 deg Planta slope specie dumps | gree. tion of stability s of plars. | native spo . Till no | ecies is als w 91055.0 een planted | o done 0 Nos 1 on en | on OB of mix | dump for ted native nt and OB |
| V | 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, | have l silt & proper | seen proving sediment rly. | vided arou t flow from tr is using | 3 km widtl and periphe m OB dump for watering een belt dev | ery of (os etc, v | OB dump which is r mine area | s to arrest maintained |
| | 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 | provide capaci | led at m ity with peak su | ine bound retention | 5 km widtl dary. Mine period hav nfall & ma | water ve beer | sump of provide | f adequate ed to with |
| | maximum discharge in the area adjoining the mine site. Sump capacity shall also provide | | | | | | | |

| Vi | adequate retention period to allow proper setting of silt material. Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and situation shall be based on the rainfall data. Crushers at the CHP of adequate capacity for the expansion project 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. | The CHP is completely covered with GI sheet and provided with water sprinkling arrangement. Fugitive dust suppression at mines is done by mobile water tanker (1 No. 28 KL departmental tanker, 2 Nos. 16 KL contractual tanker and 1 Nos. 12 KL hired tanker) |
|------|---|---|
| vii | Drills shall be wet operated. | Drills are provided with wet drilling arrangement. |
| viii | Main approach roads used for mineral transportation shall view black topped and properly maintained. A3 tier green belt comprising of mix of native species shall be developed all along the major approach roads and major haul roads and roads near mines office, infrastructure and other buildings. | All the coal transportation & other infrastructure roads are concreted or black topped. Plantation has been done along coal transportation & approach roads. Till date the plantation status is given below: Sr. Location Progressive upto 30.09.2022 1. OB Dumps & 33280 embankments (slope) 2 Safety zones 3 Backfilled 18000 Area 4 Other Area 1420 Avenue 5. Plain 55700 6. BC soil dump 2021 7. OB Dump 15000 2022 Total 158400 Nos |
| ix | The capacity of an estimated 190 trucks used for transportation of an estimated 3788 TPD of cost shall be minimum 20-T capacity and shall be mechanically covered. A 3-tier plantation shall develop under CSR for the stretch of 8 Km of the road from mine to Ghugus Railway Siding. A 3- tier plantation shall also be developed in and around the Railway Siding. Controlled blasting shall be | Coal transportation is being done as per RTO permission of coal transportation trucks. Coal transportation trucks are covered with Tarpaulin. Avenue plantation has already been done along coal transportation roads & approach roads. Controlled blasting is done during day time with the use of |

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| | 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. | delay detonators. |
| Xi | A progressive afforestation | A progressive plantation of 158400 nos. covering of area |
| | plan shall be implemented covering an area not less than 308.8 ha, which includes 190 ha in external OB dumps, 72.20 ha in backfilled area, 21.608 ha vacant/undisturbed area, 6ha along infrastructure and roads, 0.50 ha in township area for colony and 18.5 ha on embankment by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. | 63.36 Ha has been done. Sr. No. Location 30.09.2022 1. OB Dumps & embankments (slope) 33280 2 Safety zones 3 Backfilled Area 18000 4 Other Area Avenue 1420 5. Plain 55700 55700 6. BC soil dump 2021 37500 7. OB Dump 2022 15000 |
| | | Total 158400 Nos |
| xii | Of the total quarry area of 225.80 ha an area of 83.12 ha is being backfilled of which 72.20 ha shall be reclaimed with plantation and void of 142.68 ha which is proposed to be converted into a water body shall be gently sloped and the upper benches shall be terraced and stabilized with plantation/afforestation in case the expansion project along the dip side does not materialize the plantation shall consist of native plant species and shall be developed in consultation with the local DFO/Agriculture Department/Suitable institution. The density of the trees shall be around 2500 plants per ha. | The Naigaon OCM is in operation stage, as the min progresses, backfilling and further plantation work will be executed. And void of 142.68 Ha will be left for water body with gentle slope and benching. 7.02 Ha physical reclamation and 4.09 Ha biological reclamation has been done as on 30.09.2022 |
| xiii | No ground water shall be used | No ground water is being used for mining operation. |
| | for mining operations. | |

| xiv | Monitoring of ground water regime and river flow conjunctively shall be undertaken on a regular and long term basis through a network of piezometers/wells taking into account depth and site characteristics. 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 Central pollution control board quarterly as part of the compliance Report. | Regular monitoring of ground water level from existing wells M/s. Anacon Laboratories Pvt. Ltd. Nagpur for four times a year i.e. during pre-monsoon (May), monsoon (August), post-monsoon (November), and winter (January) seasons. Quality of groundwater is monitored as per IS: 10500: 2012. The monitoring report is regularly sent to Regional Officer, CGWB Nagpur with a copy to MoEF&CC & CPCB. Copy of ground water monitoring report for Nov 2021 & Oct 2022 has been forwarded via. Email to rdcr_cgwb@nic.in on dtd. 18/11/2022 from waniarea.environdept@gmail.com. |
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| xv | The Company shall put up artificial ground water recharge measures for augmentation of ground water resource in case monitoring indicates a decline in water table the project authorities shall meet water requirement of nearby village(G) in case the village wells go dry due to watering of mine. | Artificial ground water recharge measures have been developed nearby villages by deepening of pond etc. Water requirement in nearby villages is also met through providing Boreholes, Hand pumps under CSR activities of the company. |
| Xvi | Sewage treatment plant shall be installed in the existing colony.ETP shall also be provided for workshop and CHP waste water. | There is no colony under Naigaon OC mine. The employees of Naigaon reside at Sunder nagar colony of Niljai OC mine which has 0.5 MLD STP. ETP at workshop is provided of 100 KLD capacity. |
| Xvii | Besides carrying out regular periodic health checkup of their workers, 10% of the workers identified from workforce engaged in active mining operation shall be subjected to health check up for occupational diseases and hearing impairment, if any through an health institution/agency located in the region/district within period of one year and the results reported to this ministry and to DGMS. | Besides regular periodic health check up of the company workers 10% of the workers are checking for occupational diseases & hearing impairment if any, through health institution/agency within the region and report sent to concerned authority. |
| Xvii i | For monitoring land use pattern and for post mining land use, a time series of land use maps based on satellite imagery (on scale of 1:5000) | Restoration/Reclamation Monitoring of all mine of WCL having less than 5 million cum. (Coal+OB) capacity is being done by Satellite and the data is available in the website of WCL. The satellite data for Bellora Naigaon OC mine for year March 2021 is enclosed. The data is submitted to |

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| Xix | of zone and buffer zone form the start of the project until end of mine life shall be prepared one 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. A Final Mine closure plan along with details of corpus fund should be submitted to the ministry of Environment & Forests of final mine closure | account no. 08973161008487 was opened at the Oriental Bank of Commerce, Jaripataka Branch, Nagpur. The total corpus amounts available in the account as on date Rs.491484576.5 as on 31.03.2022 (Including the principal |
| Xx | The project authorities shall in consultation with local administration and Pantheist of the local villages prepare and implement a plan for socioeconomic and welfare measures under CSR to be carried out over the balance life of the mine. A budgetary provision of Rs 5 per tonne of coal shall be earmarked for CSR activities for village Bellora, Naigaon. The budget and expenditure thereon village wise and activity wise for CSR shall be displayed on WCL website and also included as part of Annual plan. | along with the interest). CIL's CSR policy dtd. 30-12-2015 has been framed as per companies Act 2013, as per notification issued by Ministry of Corporate Affairs, GoI on 27-02-2014 as well as DPE guideline. As per the policy, fund for CSR should be allocated based on 2% of average net profit of the company for three immediate preceding financial years or Rs. 2.00 per tonne of coal production of previous year whichever is higher. |
| Xxi | The company shall have a well laid down Environmental policy approved by the Board of Director. The Environment policy shall prescribe for standard operating process/procedures to bring into focus any infringement/deviation/violation of the environmental norms/conditions. To provide for checks and balances the company should have a well laid out system of reporting on non compliances/violations of environmental norms to the board of Directors of the company and/or shareholders of stakeholders at large. | Coal India Limited (CIL) has formulated a comprehensive Environment Policy only in March 2012, followed by a revised policy in December 2018 approved by CIL Board in its 377th Meeting held on 20th December'2018 for implementation at CIL and its subsidiaries. This Corporate Environment Policy 2018 of CIL was subsequently discussed in the 309th Meeting of the Board of Directors of WCL held on 04.03.2019. After deliberation, WCL Board has adopted the policy in principle for implementation in WCL and the same was communicated vide Ref: WCL/BD/SECTT/BM-309/2019/267 dated 15.03.2019. For monitoring of EC/FC norms & conditions, an online MDMS portal (Mine Data Management System) of MoC, GoI is already existing where in the environmental data namely, air quality, water quality, noise quality data are uploaded and regularly updated. In addition to that, compliance report of each condition of EC is also uploaded in the portal and the same is also updated every six months. |

| | | This management system has the access of CIL & MoC. | | |
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| B) | General 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. | Mine working is being done as per approved EC and Project report. | | |
| ii | No change in the calendar plan including excavation ,quantum of mineral coal and waste shall be made | No change in coal and OB production is done. | | |
| iii | Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO2 and NOz monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive target in consultation with the State Pollution Control Board . | Four monitoring stations has been established in the project based on meteorological data. Two core zones stations i.e. Sub Area Manager office and Workshop ETP. Two buffer zone stations has been established at namely Bellora rehabilitation village and Filter plant (Ghugus). SPM, PM10, PM 2.5 ,Sox, Nox is being monitored regularly at this stations on fortnightly basis. Ambient air Heavy metal monitoring is being done regularly. And reports is been sent to Regional officer, MPCB and MOEF in six monthly compliance. | | |
| iv | Fugitive dust emissions (PM10 and PM2.5) from all the sources shall be controlled regularly monitored and data recorded properly .Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points shall be provided and properly maintained. | Fugitive dust emission from OB dumps has been controlled significantly by developing thick green belt / vegetation over OB dumps. Plantation details are given below: Sr. Location Progressive upto 30.09.2022 1. OB Dumps & 33280 embankments (slope) 2 Safety zones 3 Backfilled 18000 Area 4 Other Area 1420 Avenue 5. Plain 55700 6. BC soil dump 37500 2021 7. OB Dump 15000 2022 Total 158400 Nos Similarly dust emission from other sources is being | | |
| V | Data on ambient air quality (PM10, PM2.5, SO2 and NOz)shall be regularly submitted to the Ministry including its Regional Office | Similarly dust emission from other sources is being controlled by regular water spraying through mobile water tankers in addition to all the road has been black topped and cleaning weigh bridge and coal transportation road also helps to arrest fugitive emission of dust. Mine haul roads are being watered through mobile tankers regularly. Data on ambient air quality SPM, PM10, NOx & SO2) are being submitted regularly along with six monthly compliance report. | | |

| | at Bhopal and to the State Pollution control Board and the central Pollution Control Board once in six months. | |
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| vi | Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Worker engaged in blasting and drilling operations, operation of HEMM etc shall be provided with ear plugs/muffs. | In order to control excessive noise during operation of HEMM regular maintenance of all HEMM as well as supply of ear plugs and muffs are being provided to the workers engaged in operations. In addition to this regular noise monitoring every fortnight is being done. |
| vii | Industrial wastewater(workshop and waste water from the mine) Shall be properly collected treated so as to confirm to the Standards prescribed under GSR422(E) dated 19 th May1993 and or as amended from time to time before discharge .Oil and grease trap shall be installed before discharge of workshop effluents . | Mine water after initial sedimentation in the mine sump is pumped out & collected into surface sedimentation pond for further settlement. The dimension of RCC sedimentation tank is 30m x 10.5m x2.5m. ETP of 100 KLD has been provided for workshop waste water & recycled the treated water with Zero discharge |
| viii | Vehicular emissions shall be kept under control and regularly monitored. | Vehicular emission is kept under control by routine maintenance of vehicles used in operation The tippers carrying coal are optimally loaded and covered fully by tarpaulins. |
| ix | Environmental laboratory shall be established with adequate number and type of pollution monitoring and analysis equipments in consultation with the state pollution Control Board. | Monitoring of Environment quality parameter is being done by CMPDIL, RI – IV, Nagpur. A full-fledged NABL accredited environmental laboratory already exists at CMPDI Nagpur. |
| x | Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information examination 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 to take corrective measures, if needed and records maintained thereof. | Protective health and Safety wears are provided to workmen exposed to dust namely dust mask, Helmets, safety boots, Goggles, hand gloves etc. as per DGMS specification. The workers are regularly given training on safety and health aspects (Statutory requirement under mines act). Initial medical examination (IME) is done for the workers. Moreover regular health checkups through periodical medical examination (PME) of all the workmen once in 5 years as per the statue and workers above 55 years of age once in a year is conducted. All the works are being carried out with all the safety measures and awareness is being created among employees for safety and to avoid any accidents. Details of PME & IME is given below: |
| | | Year PME Departmental Contractual IME IME |

| | | 2017 10 | 222 | 1 | 2.40 | |
|---|---|---|---|---|--|-----------------------------------|
| | | 2017-18 | 233 | 1 | 342 | - |
| | | 2018-19 | 0 | 5 | 290 | 4 |
| | | 2019-20 | 11 | 6 | 185 | |
| | | 2020-21 | 4 | 23 | 323 | |
| | | 2021-22 | 20 | 2 | 133 | |
| | | 2022 (April | 21 | 5 | 90 | |
| | | to Sep) | | | | |
| | | | | | | |
| xi | 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. | by Sub Area M (Env), at Area and is assisted corporate level | lanager a level, Ar by GM (at HQ, l | vironmental ma ind is assisted by ea General Mar OP) & Area No neaded by Gene y team of qualif | y Project Noda nager is head o dal Officer (En ral Manager (E | l Officer f the cell nv), at Env) |
| xii 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 | | diverted for any tree plantation, | y other p consent nt work | maintained sepa urposes. Expend fees, dust supprete. for last seve given below: | diture pertainir ression, ETP & | ng to STP, |
| | be reported to this Ministry and its Regional Office at Bhopal | | Year | Amoun | t (in Rs.) | |
| | | No. | 1.4 1.5 | | (5027(5.00 | |
| | | | <u>14 – 15</u> | | 6502765.00 | |
| | | | $\frac{15-16}{16}$ | | 8485627.00 | |
| | | | <u>16 – 17</u> | | 7890683.00 | |
| | | | $\frac{17-18}{10-10}$ | | 5923582.00 | |
| | | | 18 – 19 | | 1476318.00 | |
| | | | 019-20 | | 4708627.22 | |
| | | | 20 -21 | | 8200369.00 | |
| | | 8 20 | 21 - 22 | 1 | 0377576.00 | |
| | | Bellora Naigao | allation a on OC – l | 21-22: nd commission Rs. 6527538.93 r for Naigaon C | _ | |
| 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 Officer by furnishing the requisite data/information/monitoring reports. | | ort etc. is | by furnishing dass being provided | | |
| xiv | A copy of the will be marked to concerned Panchayat/ local NGO, If any from whom any suggestion/representation has been received while processing the proposal. | | | mental clearand Sarpanch of th | | |

| xv | State Pollution control Board shall display a copy of the clearance letter at the Regional office. District Industry centre and collector's office/ tehsiladas's office for 30 Days. | Not applicable |
|-----|---|--|
| xvi | 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 http://encfor.nic.in | The advertisement has been published in news paper (English - Lokmat Times, Hindi LokmatSamachar& Marathi Lokmat , Nagpur) |
| 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 provision 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. | Noted |

Sub Area Manager,
Bellora-Naigaon OCM - Neeljay Sub Area