



TRIMULA INDUSTRIES LIMITED

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Ref

Date.....

TIL/Meral/2024/10

Date-02.01.2024

To,
Additional Principal Chief Conservator of Forests,
Regional Office (ECZ),
Ministry of Environment, Forest and Climate Change,
Harmu Chowk,Ranchi (Jharkhand)

Subject: Six monthly Reports (July 2023 to December 2023) on the status of compliance of stipulated conditions in EC granted to Meral Opencast Coalmine Project, District Palamau, Jharkhand.

Reference: Environment Clearance (EC) no. J-11015/233/2008-IA.II (M) dated 23.09.2009 transferred to Trimula Industries Limited vide MOEFCC order dated 06.07.2015

Sir,

Trimula Industries Limited (TIL) was declared successful bidder for Meral Coal Mine, Palamau by the Ministry of Coal, New Delhi and the mine was vested to TIL on 22.04.2015. Ministry of Environment, Forest & Climate Change, New Delhi had granted Environment Clearance to Meral Coal Mine vide letter no. J-11015/233/2008-IA.II (M) dated 23.09.2009. Subsequently, the EC was transferred to Trimula Industries Limited vide MOEFCC order dated 06.07.2015.

In compliance with condition (xvi) under General Conditions of the EC, please find enclosed report on the status of compliance of the stipulated environmental clearance conditions for period July 2023 to December 2023 as **Annexure A**.

Please note, mining has not commenced at Meral Opencast Coalmine Project yet. We are in advance stage in Land acquisition and other parallel development activities.

Thanking you,

Yours Sincerely,
For Trimula Industries Limited

(Anand Mohan Prasad)
Vice President, Mining
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Copy to:

1. Scientist D & Incharge, Zonal Office CPCB, Southern Conclave, Block 502, 5th & 6th Floor, 1582 Rajdanga Main Road, Kolkatta 700 107
2. The Member Secretary, JSPCB, T.A. Division Building, HEC, Dhurwa Ranchi

Encl: As above.

Annexure-A

ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

(Period: July 2023 –December 2023)

Project: Meral Opencast Coal Mine

EC No. J-11015/233/2008-IA.II (M) dated 23.09.2009 transferred to Trimula Industries Limited vide

MOEFCC order dated 06.07.2015

A. SPECIFIC CONDITIONS

Sr.	Condition	Compliance
i.	A 3-tier plantation consisting of native species shall be developed on both sides of the SH-48 passing through the lease. Prior approval of the State Government shall be obtained for diversion of SH-48 during the 20 th year of the mine operation for a length of 1.5 km within the ML area towards western side of the block without disturbing the traffic flow.	Will be complied
ii.	Mining shall be done maintaining a minimum statutory distance between the river Amanat and quarry edge of the East and West Quarries. The plan for diversion and realignment of the Jinjoi nala and construction of embankment along River Amanat shall be done in consultation with and prior approval of the concerned State Flood and Irrigation Department before start of the mining activity. Dimension and depth of the embankment shall be finalised based on the peak flow of the water and shall be at least 3 m above the HFL. The slope of the embankment shall at least 2:1 towards the ML and shall be stabilized with plantation.	Trimula applied Water Resource Department (WRD) GOJ for approval of realignment of Jinjoi nala. WRD instructed Trimula to conduct model study from Central Water and Power Research Station, Pune. Trimula approached WAPCOS and awarded the work on 14th March, 2018 to conduct necessary investigation and analysis for diverting the water of Jinjoi nala to ensure safe mining and maximum utilization of coal. WAPCOS prepared the Detailed Project Report and submitted to the office of Chief Engineer (Mont.) Project Monitoring and Planning, WRD, Ranchi on dated 10th August, 2020. Chief Engineer raised some queries vide letter no. 409 dated 31.08.2020. The same has been complied on 28.09.2020. WRD Jharkhand is preparing a SOP for all diversion issues. Trimula will comply the same as soon as SOP is issued.
iii.	Mining shall begin from the side of western quarry abutting the NH and the entire coal would be extracted after start of mining operations and thereafter the quarried area shall be backfilled immediately, compacted and reclaimed with plantation and if required surrendered. The statutory distance between the quarry and NH shall be maintained during mining	Will be complied as per mining Plan.

iv.	Topsoil shall be stacked properly within the ML area with proper slope at earmarked site(s) and shall be used concurrently for reclamation and development of green belt of its generation.	Will be complied
v.	OB shall be stacked at earmarked external OB dumpsite of 88.51 ha within ML area and shall be a maximum height of 60m only consisting of two benches of 30 m. Garland drains shall be maintained around the Jinjoi Nala and along the OB dumps, which would be regularly desilted to prevent siltation of the Jinjoi nala and River Amanat. The ultimate slope of the dump shall not exceed 28 ^o . 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 Bhubaneswar on yearly basis.	Will be complied
vi.	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% safely 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.	Will be complied
vii.	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.	Will be complied
viii.	Drills shall be wet operated.	Will be complied
ix.	Controlled blasting shall be practiced only during daytime with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.	Will be complied
x.	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. at all times of operation to check fugitive emissions from crushing operations, transfer points of and from transportation roads and at Railway siding.	Will be complied
xi.	The proponent shall establish a Railway siding at Kajri within 3 years from date of grant of environmental clearance. The trucks/dumpers from the mine shall not use the NH and instead shall use an existing road that runs along north of the lease and cross the NH to reach the railway Siding for an initial period of 5 years. Prior permission shall be obtained from NHAI to construct an underpass or an over bridge to cross the NHAI. The proponent shall simultaneously undertake a feasibility study for transport of coal to the Railway Siding by closed conveyors to completely switch to closed conveyor – cum rail mode of transport within 5 years from date of environmental clearance.	Will be complied



xii.	All approach roads to the mine and to Railway Siding shall be black topped and internal roads shall be concreted or black topped. The main approach roads and internal roads shall be regularly cleaned. A 3-tier avenue plantation using local species shall be developed along the main approach roads to mine and to Kajri Railway Siding. Green belt shall be developed using local species all along the periphery of the mine, along the areas such as crushing unit, transfer points and at Kajri Railway Siding.	Will be complied
xiii.	Trucks/dumpers engaged for transportation of coal to Kajri Railway Siding shall be optimally loaded and covered with tarpaulin with no spillage on route. The trucks shall be properly maintained and emissions shall be below notified limits.	Will be complied
xiv.	No groundwater shall be used for the mine operations except for the initial 3 years and limited to domestic use only. Any additional water requirement envisaged shall be obtained by recycle/reuse to the maximum extent and from rainwater harvesting measures.	Will be complied
xv.	Industrial wastewater (workshop and wastewater from the washery) 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 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed for treatment of workshop effluents.	Will be complied
xx.	Area brought under afforestation shall not be less than 582.77 ha which includes reclaimed external OB dump (88.54 ha), topsoil dump, backfilled area (427.17 ha), along ML boundary (26 ha), along roads (5 ha), green belt (36.06 ha), in undisturbed areas and in colony and railway siding by planting native species in consultation with local DFO / Agriculture Department. The density of the trees shall be around 2500 plants per ha.	Will be complied
xxi.	A progressive closure Plan shall be implemented by reclamation of quarry area of 566.93 ha of which 427.17 ha shall be backfilled and afforested by planting native plant species in consultation with the local DFO / Agriculture Department. The density of trees shall be around 2500 plants per ha. The balance de-coaled area shall be gently sloped along the upper benches and stabilised and reclaimed with plantation.	Will be complied
xxv.	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. 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 and in monsoon. Data thus collected shall be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.	Will be complied
xxvi.	The company shall put up artificial groundwater recharge measures including rainwater harvesting structures for augmentation of groundwater resource in case monitoring indicates decline in water table. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	Will be complied
xxvii.	ETP shall also be provided for workshop, and CHP. Effluents shall be treated to conform to prescribed standards, particularly for pH and TSS in case of discharge into any watercourse within or outside the lease.	Will be complied



xxviii.	An STP shall be provided for the township / colony to treat the domestic effluents to prescribed standards and for their reuse in project activities.	Will be complied
xxix.	An amount not less than Rs. 3 crores as capital costs and Rs. 2.3 crores (which shall be up scaled after adjusting for depreciation of the rupee) as revenue costs shall be provided for implementing environmental measures. The details of the activities and expenditure made thereon shall be displayed on the company's website and updated at least once in six months.	Will be complied
xxx.	R&R for Meral village shall be based on norms laid down / approval by the State Government and shall not be inferior than that in the National R&R Policy and shall be completed within a specified time-frame. R&R shall include specific income generation schemes. The progress of R&R shall be uploaded on the company's website.	Will be complied
xxxi.	The proponent shall provide Rs. 1.5 crores for revenue expenditure (which shall be up scaled after adjusting for depreciation of the rupee) towards activities undertaken under CSR. The details of the activities and expenditure made thereon shall be displayed on the company's website and updated at least once in six months.	Will be complied
xxxii.	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 Bhubaneshwar.	Will be complied
xxxiii.	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests for approval 5 years in advance of final mine closure for approval	Will be complied



B. GENERAL CONDITIONS

Sr.	Condition	Compliance
i.	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	Will be complied
ii.	No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.	Will be complied
iii.	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of SPM, RSPM SO ₂ and NO _x . 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 once in a six months.	Will be complied
iv.	Data on ambient air quality (SPM, RSPM, SO ₂ and NO _x and heavy metals such as Hg, As, Ni, Cr, etc.) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar 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 recognised under the EP Rules, 1986 shall be furnished as part of the compliance report.	Will be complied
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.	Will be complied
vi.	Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, and treated so as to conform to the standards including for heavy metals before discharge prescribed under GSR 422 (E) dated 19 th May 1993 and 31 st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	Will be complied
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.	Will be complied
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.	Will be complied
ix.	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 to take corrective measures, if needed.	Will be complied
x.	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.	Will be complied



xi.	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 Bhubaneshwar.	Will be complied
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 http://envfor.nic.in	Complied
xiii.	A copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urban Local Body and 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.	Complied
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.	Complied
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 data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as SPM, RPM, SO ₂ and NO _x (ambient and stack if any) and critical sectoral parameters 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 reports on the status of compliance of the stipulated environmental clearance conditions (both in hard and in e-mail) to the respective Regional Office of the MoEF, the respective Zonal offices of CPCB and the SPCB.	Submitting on regular basis
xvii.	The Regional Office of this Ministry located at Bhubaneshwar 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.	Will be complied
xviii.	The environmental statement for each financial year ending 31 st 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 by E-mail.	Will be complied

