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Status of compliance of the terms and conditions given in the Environmental clearance letter No. J-11015/318/2009-IA. II (M) dt. 07.05.2013 issued by MOEF , Govt. of India, New Delhi for expansion of production capacity of Tetariakhar OCP from 0.5 MTPA to 2.0 MTPA with a peak capacity of 2.50

Period – Apr-13 to Sep-13

SL.NO	Condition	Status of compliance
i	No mining operations shall be undertaken in the forest land until forest land forestry clearance has been obtained under the provisions of FC Act-1980.	EC has been accorded for 155.58 Ha containing no forest land.
ii	Peak production from mine shall not exceed 2.5 MTPA without prior environmental clearance.	complied
iii	Mining shall be carried out as per statute at a safe distance from the bhuthia Nala flowing adjacent to the lease boundary	Mining is being done as per statute and the Project Report. Distance from nalla to working area is 50mt
iv	The bond/ embankment constructed alongside bhuthia Nala shall be at least 3 m higher than highest flood level, based on past data so as to guard against mine inundation. The slope of the embankment shall be at least 2:1 towards the ML and the embankment stabilized with plantation.	RL is more than 3 meters above the HFL. It is proposed to strengthen the embankment with retaining wall
v	No washery shall be established within the ML area without prior environmental clearance from the ministry.	Complied

vi	Topsoil, if any, should be stacked properly with proper slop at earmarked site and should not be kept active and shall be used for reclamation and development of green belt.	Topsoil is being used exclusively for reclamation and development of green belt.
vii	No additional OB shall be dumped on the existing OB dump. The new OB generated shall be concurrently backfilled in the decoaled area. The already accumulated OB has been stacked at earmarked one external OB deposit(s) within ML of a maximum height of 90 m and consisting of 3 benches of 30 m each. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsite shall continue until the vegetation becomes self-sustaining. compliance status should be submitted to the Ministry of Environment and Forests and its Regional Office located at Bhubaneshwar on an yearly basis.	OB is dumped in non coal bearing area outside the quarry.
viii	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 drain 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	Maintained

	peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provided adequate retention period to allow proper setting of silt material.	
ix	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.	It is under process.
x	High efficiency bag filters / water sprinkling system should be provided to check fugitive emissions from the workshop, conveyor system, haulage roads, transfer points etc.	Sufficient numbers of movable water sprinkling system has been provided to check fugitive emissions from various part of mine as per details given below; (i) Mobile water sprinklers (a) 12 KL water tanker: 02 nos.
xi	Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded. The road used for transportation to railway head shall be metal topped.	Vehicles are regularly being maintained to control the emissions. Coal transportation is being done in covered trucks. The haul road is being maintained by graders to minimize generation of dust during transportation.
xii	Railway siding under construction with Raid Loading System to replace transportation of coal by road , shall be constructed in a time bound manner and have adequate arrangements for dust suppression.	Railway siding is situated at 29 km at Tori. Coal is being carried to siding in covered trucks

xiii	Drills should be wet operated.	All drills are being wet operated.
xiv	Controlled blasting for OC operations should be practiced daytime 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 techniques is being adopted. Blasting is done only in day light hours.
xv	Area brought under afforestation shall not be less than 976 Ha and shall include reclaimed external OB dump, backfilled area , along ML boundary, along roads and green belt ( 426 ha) within the lease area by planting native species in consultation with the local DFO/ Agriculture Department. The density of the trees should be around 2500 plants per ha.	No land is spareble for plantation as excavation area is too less.
xvi	A progressive closure plan shall be implemented by reclamation of quarry area of 540 ha of which shall be backfilled, stabilized and afforested by planting native plant species in consultation with the DFO/ Agriculture Department. The density of the trees should be around 2500 plants per ha. The balance de-coaled void of 15 Ha being converted in to a water body shall be gently sloped and the upper benches shall be established with plantation	A mine closure plan of TTK OCP has been made and approved by CCL Board in 385 <sup>th</sup> meeting held on 24/02/12
xvii	The company shall obtain prior approval of CGWA/CGWB Regional Office for use of ground water if required, for mining operations.	Agreed.

xviii	Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring of quantity should 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 should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.	Shall be complied.
xix	The company shall put up artificial groundwater recharge measures for augmentation of groundwater resource. The Project authorities should meet water requirement of nearly village(s) in case the village wells go dry due to dewatering of mine.	48 nos hand pumps are to be drilled in different places of TTK OCP.; tender has been received. 5 no deep wells to be constructed have been awarded. total approx. expenditure will be incurred about Rs 3203725.35
xx	Waste water from coal washery shall be treated to prescribed standards and recycled for mining operations to the maximum extent possible.	NA
xxi	ETP should also be provided for treating workshop effluents and excess mine water to meet prescribed standards and recycled for mining operations to the maximum extent possible.	Will be done.

xxii	An STP shall be provided in the township for treating domestic waste water to meet the prescribed standards and recycled for mining operations to the maximum extent possible.	NA
xxiii	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 ) 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 MOEF and its Regional Office at Bhubaneswar	The Remote Sensing is being carried out by CMPDI and the report shall be submitted to MOEF Bhubaneswar.
xxiv	A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests for approval 5 years in advance of final mine closure for approval.	To be complied 5 years prior to mine closure.
xxv	Consent to Operate shall be obtain before starting mining operations after fulfillment of conditions imposed in NOC	Yes , fulfilled.
<b>B</b>	<b>General Condition</b>	
i	No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment and Forests.	There is no change in mining technology.
ii	No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.	Production of coal and OB is as per calendar plan.

iii	For ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for SPM, RPM, SO <sub>2</sub> and NO <sub>x</sub> monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive in consultation with the State Pollution Control Board.	Air quality monitoring station has been established at PO office, Pinderkom village and workshop for monitoring SPM, RPM, SO <sub>2</sub> , NO <sub>x</sub> . The results of monitoring report are enclosed.
iv	Fugitive dust emission (SPM and RPM) from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul road, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintain	Dust is controlled regularly by spraying water at Haul road, transfer point etc. Sprinkling system has been provided to check fugitive emissions from various part of mine as per details given below; (i) Mobile water sprinklers (a) 12 KL water tanker : 2 nos.
v	Data on ambient air quality (SPM, RPM SO <sub>2</sub> and NO <sub>x</sub> ) should be regularly submitted to the ministry its Regional Office at Bhubaneswar and to the State Pollution Control Board and to the Control Pollution Control Board once in six months.	Environment Quality data is regularly submitted to MoEF, Regional Office and SPCB. A copy of same is enclosed.
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, operation of HEMM etc. should be provided with ear plugs /muffs.	Measures taken

vii	Industrial waste water ( workshop and waste water from the mine ) should be properly collected, treated so as to confirm to the standards prescribed under GSR 422 ( E) dated 19th May 1993 and 31stDec-93 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents	The results of water quality monitoring report are enclosed.
viii	Vehicular emission should shall be kept controlled and regularly monitored. Vehicles used for transporting the minerals should be covered with tarpaulins.	Complied
ix	Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.	Pollution monitoring and analysis is being carried out by CMPDIL.
x	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. Operational 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.	Complied



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.	Separate environmental cell established at area level.
xii	The funds earmarked for environmental protection measures should 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 at Bhubaneswar.	Complied.
xiii	The Regional Office of this Ministry located at Bhubaneswar 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.	Agreed.
xiv	A copy will be marked to concerned Panchayat / Local NGO, if any, from whom any suggestion / representation has been received while processing the proposal	Complied
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	To be done by JSPCB

xvi	<p>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 Pollution Control Board and may also be seen at the website of the ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>.</p>	<p>The information about environment clearance has been published in Hindustan, Prabhat Khabar, Dainik Jagran , CCL,Ranchi Express in Hindi.</p>
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 Project Officer  
 Tetariakhar OCP