

BHARAT COKING COAL LIMITED (A (Subsidiary of Coal India Ltd.) Office of the General Manager Govindpur Area SONARDIH, DHANBAD – 828125

Ref No: Ref. No.:BCCL/GM/Area III/ 2013/ 10 S Date: 17.07.13

To,
The Director(s)
Ministry of Environment & Forest
Govt. Of India
Eastern Region Office.
A/3, Chandrashekharpur, Bhubaneshwar -751023

Sub: - Six monthly Reports on Implementation of environmental measures for the period from Oct '12 to March '13 in respect of Cluster III group of mines EC Order no. J-11015/213/2010-1 A.II (M) dated 06.02.13.

Dear Sir,

Enclosed please find herewith Six monthly Reports on Implementation of environmental measures for the period from Oct '12 to March '13 in respect of Cluster III group of mines EC Order no. J-11015/213/2010-1 A.II (M) dated 06.02.13 for your kind perusal.

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General Manager
Govindpur Area, BCCL

Copy To:-

- Dr. Sunita Aulock, Director, IA monitoring cell Paryavaran Bhawan CGO Complex, New Delhi – 110003.
- 2. GM (Envt.) BCCL, Koyla Bhawan, Dhanbad.
- 3. Area Manager (Plng.), Govindpur Area.
- 4. Nodal Officer (Envt.)

ENVIRONMENTAL CLEARANCE COMPLIANCE OF CLUSTER-III

(GRANTED VIDE J-11015/213/2010-IA.II(M) Dated 06.02.2013) (Upto March 2013)

Sl.no.	A. Specific Conditions by MOEF:	Compliance
i	The maximum production from the two opencast sections in the cluster shall not exceed beyond that for which environmental clearance has been granted.	The production from the cluster is within the limit for which environmental clearance has been granted.
li	The measure to identify in the Environmental Plan for Cluster- III groups of mine and the conditions given in this environmental clearance letter shall be dovetailed to the implementation of the Jharia Action Plan.	Master Plan is dovetailed with environmental clearance conditions.
lii	The proponent shall prepare time-series maps of the Jharia Coalfields through NRSA to monitor and prevent fire problems in the Jharia Coalfields by Isothermal mapping /imaging and monitoring temperatures of the coal seams (whether they are close to spontaneous ignition temperatures) and based on which, areas with potential fire problems shall be identified. Measures to prevent ingress of air (Ventilation) in such areas, to prevent restart fresh/spread fires in other areas including in mines of cluster II shall be undertaken. Expertise available internationally could also be 2ecogniz for control of fire in Jharia Coalfields and for their reclamation and to further minimize time for fire and subsidence control. Isothermal mapping using thermal imaging has been got done by NRSA. Measures would be taken to prevent ingress of air (ventilation) in such areas, which may re-start fresh fires.	Work has been awarded to NRSC (earlier NRSA). A MoU is to be entered with the NRSC for start of the work .For this purpose, duly signed MOU has been sent to NRSC for necessary processing at their end and to start the work immediately .(Copy enclosed as Annexure-A) Action is being taken as specified in the Master Plan and EMP.
lv	Underground mining should be taken up after completion of reclamation of Opencast mine area.	It shall be complied.
V	The OB material should be crushed like sand and be used for stowing in underground mines.	The methods of utilization of OB material for stowing will be explored.
Vi	A detailed calendar plan of production with plan for OB dumping and backfilling (for OC mines) and reclamation and final mine closure plan for each mine of cluster-III shall be drawn up and implemented. The schedule of backfilling should be clearly brought out and submit the same to MoEF.	Calendar plan has been prepared. Mine closure plan as per the guidelines of Ministry of Coal and on the basis of cluster concept is under preparation by Central Mine planning and Design Institute (CMPDI).
Vii	The embankment constructed along the river	It shall be complied

	boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side and Stabilized with plantation so as to withstand the peak water flow and prevent mine inundation.	
viii	The rejects of washeries in Cluster –III should be send to FBC based plant.	Coal washery does not exist in this cluster at present.
lx	No mining shall be undertaken where underground fires continue. Measure shall be taken to prevent/check such fire including in old OB dump areas where the fire could start due to presence of coal/shale with sufficient carbon content.	It shall be complied.
X	There shall be no external OB dumps. OB produce from the whole cluster will be 80Mm ³ . OB from 2 OCP in mixed mines shall be backfilled. At the end of the mining there shall be no void and the entire mined out area shall be re-vegetated. Areas where opencast mining was carried out and completed shall be reclaimed immediately thereafter. It was observed that most of the Obs are not reclaimed and abandoned. The proponent should dump all the OB material I n abandoned mines.	At the end of mining there shall be no void and area will be re-vegetated and reclaimed. Action is being taken as specified in EMP
Xi	Number of voids present in cluster – III at the end of mining should be backfilled upto ground level and no void should be left at the end of mining.	It shall be complied.
Xiii	Mining shall be carried out as per statuette from the streams/nalas flowing within the lease and maintaining a safe distance from the Nalas flowing along the lease boundary. A safety barrier of a minimum 60m width shall be maintained along the nalas/water bodies. The small water bodies in OC shall be protected to the extent feasible and the embankment proposed along water body shall be strengthened with stone pitching.	It is being followed. Action for construction of embankment has been taken as specified in EMP.
xiv	Active OB dumps near water bodies and rivers should be rehandled for backfilling abandoned mine voids. However, those which have been biologically reclaimed need not be disturbed.	No OB is being dumped near water bodies. Further action has been taken for their ecorestoration.
XV	Thick green belt shall be developed along undisturbed areas, mine boundary and in mine reclamation. A total area of 854.72 ha shall be reclaimed and afforested.	It is being complied. Plantation is being done for development of green belts as per EMP.

xvi	Details of transportation, CSR, R&R and implementation of environmental action plan for the clusters-III should be brought out in a booklet form within a year and regularly updated.	It shall be complied.
Xvii	Specific mitigative measures identified for the Jharia Coalfields in the Environmental Action Plan prepared for Dhanbad as a critically polluted are and relevant for Cluster III shall be implemented.	Dhanbad Action Plan is being implemented. The salient actions of this cluster Covered transportation of coal. Water sprinkling Plantation. Utilisation of surplus mine water.
xviii	The locations of monitoring stations in the Jharia Coalfields should be finalized in consultation with the Jharkhand State Pollution Control Board. The Committee stated that smoke/dust emission vary from source to source (fuel wood, coal, fly ash from TPPs, silica from natural dust, etc) and a Source Apportionment Study should be got carried out for the entire Jharia Coalfields. Mineralogical composition study should be undertaken on the composition of the suspended particulate matter (PM ₁₀ and PM _{2.5}) in Jharia Coalfields and also quantified. These studies would help ascertain source and extent of the air pollution, based on which appropriate mitigative measures could be taken.	The fixing up of locations of monitoring stations in the Jharia Coalfields has been taken up with the Jharkhand State Pollution Control Board. (Annexure-B) The work of monitoring of ambient environment will be done through Central Institute of Mining & Fuel Research (CIMFR), Dhanbad who is having CSIR laboratory recognized under the EP Rules. For the source apportionment study the action has been taken with help of CMPDIL. Presently ambient air is being monitored through BCCL own Laboratory at HQ level.
Xix	The Plan for conveyor-cum—rail for Cluster-III should be dovetailed with Jharia Action Plan. The Committee desired that road transportation of coal during Phase—I should be by mechanically covered trucks, which should be introduced at the earliest. Coal dispatch shall be diverted from the present rail sidings to Rapid Loading System (RLS) soon after the construction and commissioning of the RLS at Maheshpur is completed. The railway siding order issued and same would come in 3 years. The details of same should be provided to ministry. The mode of transportation of coal by truck till Railway Siding should be by mechanically covered trucks	Action has been taken for preparation of the transportation plan for conveyor cum rail system of dispatch through CMPDIL By that time transportation is being done by covering vehicle with tarpaulin cover. Action for mechanical covered trucks has been taken .
Xx	3756 nos of PAF's should be rehabilitated at cost of Rs 27012.66 Lakhs as per the approved Jharia Action Plan.	It is being followed as per the approved Jharia action plan.
Xxi	Regular monitoring of groundwater level and quality of the study area shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall be dome four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality including	It shall be complied. The work of monitoring will be done through Central Institute of Mining & Fuel Research (CIMFR), Dhanbad who is having CSIR laboratory recognized under the EP Rules. Presently CMPDI is monitoring the ground water level.

up the monitoring stations for this e is in process with Jharkhand State on Control Board.
be complied.
ent coal pillars have been left around air as per the statutes and DGMS guidelines.
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be complied.
be complied as per the statute and DGMS nes.
ing followed.
be complied. BCCL is implementing CSR es.

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	expenditure thereon shall be uploaded on the company website every year. The company must give priority to capacity building both within the company and to the local youth, who are motivated to carry out the work in future. The gap/space available between the entire mine area should be suitably planted with native species. Plantation should also be made in vacant area and along the road side so as to reduce dust pollution.	
xxix	Central recreation park with herbal garden should be developed for use of all inhabitants.	Being complied. Action has already been taken for identification of land for development of herbal garden.
Xxx	The mine water should be treated properly before supply to the villager.	It shall be complied.
Xxxi	Details of transportation, CSR, R&R and implementation of environmental action plan for each of the clusters-III should be brought out in a booklet form within a year and regularly updated.	It shall be complied.
Xxxv	Mine discharge water shall be treated to meet standards prescribed standards before discharge into natural water courses/agriculture. The quality of the water discharged shall be monitored at the outlet points and proper records maintained thereof and uploaded regularly on the company website.	It shall be complied. Jharkhand State Pollution Control Board has been consulted for this purpose. The monitoring will be done through Central Institute of Mining & Fuel Research (CIMFR), Dhanbad who is having CSIR laboratory recognized under the EP Rules. Presently mine water is being monitored through BCCL own Laboratory at HQ level.
Xxxvi	No groundwater shall be used for the mining activities. Additional water required, if any, shall be met from mine water or by recycling/reuse of the water from the existing activities and from rainwater harvesting measures. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry to dewatering of mine.	It is being complied and mine water is being used for the industrial purpose. Further Mine water is also utilized for the community and irrigation purposes.
Xxxvii	The void shall be converted into a water reservoir of a maximum depth of 15-20 m and shall be gently sloped and the upper benches of the reservoir shall be 6ecognized with plantation and the periphery of the reservoir fenced. The abandoned pits and voids should be backfilled with OB and reclaimed with plantation and or may be used for pisciculture.	It shall be complied. At the end of mining a part of the void will be converted into the water body as specified in EMP.
Xxxix	ETP shall also be provided for workshop, and CHP, if any. Effluents shall be treated to confirm to prescribe standards in case discharge into the natural water course.	Construction of Oil grease Trap is being taken- up.

Xxxl	The location of monitoring stations in the Jharia coalfield should be finalized in consultation with Jharkhand State Pollution Control Board.	The fixing up of locations of monitoring stations in the Jharia Coalfields has been taken up with the Jharkhand State Pollution Control Board. (Annexure-B).
ΧI	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 Bhubaneswar.	Complied. Presently a time series map of vegetation cover in the Jharia Coal Field is being carried out through CMPDI Ranchi. Further CMPDI has been requested to prepare "Time series of land use maps based on satellite imagery of the core zone and buffer zone in the scale 1:50000 for every 3 years.
Xli	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests five year before mine closure for approval. Habitat Restoration Plan of the mine area shall be carried out using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the lease for reintroduction in the mine during mine reclamation and at the post mining stage for habitat restoration.	CMPDI has been requested to prepare clusterwise "Final Mine Closure Plan along with a Plan for Habitat Restoration and with details of Corpus Fund".
Xlii	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests five year before mine closure for approval. Habitat Restoration Plan of the mine area shall be carried out using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the lease for reintroduction in the mine during mine reclamation and at the post mining stage for habitat restoration. The mining plan and post-mining plan, closure plan should be prepared and submitted to the Ministry;	CMPDI has been requested to prepare clusterwise "Final Mine Closure Plan along with a Plan for Habitat Restoration and with details of Corpus Fund".
Xliii	A separate management structure for implementing environment policy and socio-economic issues and the capacity building required in this regard.	A full-fledged Environment Department, headed by a HoD (Environment) along with a suitable qualified multidisciplinary team of executives (12 nos.) which includes Environment, Mining, Excavation, Civil, Survey ,Electrical & mechanical, Forestry disciplines executives and technicians (4 nos.) has been established in Headquarters. They are also trained in ecological restoration, sustainable development, rainwater harvesting methods etc. At the project level, one Executive in each area has also been nominated as Project Nodal Officer (Environment) and is also

		entrusted with the responsibility of compliance and observance of the environmental Acts/ Laws including environment protection measures .The activities are monitored on regular basis at Area and at Head quarters levels. GM (Environment) at head quarter level, co-ordinates with all the Areas and reports to the Director (Technical) and in turn he reports to the CMD of the company. The team is multidisciplinary and very much motivated under the guidance of company's Director (Technical) and CMD. Further capacity building at both corporate and operating level is being done.
Xliv	Corporate Environment Responsibility: The Company shall have a well laid down Environment Policy approved by the Board of Directors.	A well defined Corporate Environment Policy has already been laid down and approved by the Board of Directors. This is also posted on BCCL website.
	The Environment Policy shall prescribe for standard operating process/ procedures to bring into focus any infringements/deviation/violation of the	Complied.
	environmental or forest norms/conditions.	A hierarchical system of the company to deal with environmental issues from corporate level
	The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental	to mine level already exists.
	clearance conditions shall be furnished.	Being complied.
	d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms	
	to the Board of Directors of the company and/or shareholders or stakeholders at large.	
В	General Conditions by MOEF:	
i	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	Being complied.
li	No change in the calendar plan of production for quantum of mineral coal shall be made.	Being complied.
lii	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM ₁₀ , PM _{2.5} , SO ₂ and Nox monitoring. Location of the stations shall be decided based on the	The fixing up of locations of monitoring stations in the Jharia Coalfields has been taken up with the Jharkhand State Pollution Control Board.
	meteorological data, topographical features and environmentally and ecologically sensitive targets in	The work of monitoring of ambient environment will be done through Central Institute of Mining

	consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr ,etc carried out at least once in six months.	& Fuel Research (CIMFR), Dhanbad who is having CSIR laboratory recognized under the EP Rules.
Iv	Data on ambient air quality (PM ₁₀ , PM _{2.5} , SO ₂ and NO _x) and heavy metals such as Hg, As, Ni, Cd, Cr 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 9ecognized under the EPA rules, 1986 shall be furnished as part of compliance report.	It shall 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.	Being Complied.
Vi	Industrial wastewater (workshop and wastewater 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 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.	The fixing up of locations of monitoring stations in the Jharia Coalfields has been taken up with the Jharkhand State Pollution Control Board. The work of monitoring of ambient environment will be done through Central Institute of Mining & Fuel Research (CIMFR), Dhanbad who is having laboratory recognized under the EP Rules. Presently mine effluent is being monitored through BCCL own Laboratory at HQ level.
vii	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.	It is being 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 recognized under EPA Rules, 1986.	It is being done.
lx	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.	Being Complied. Vocational training Centers and Human Resource Development Deptt. Is conducting regular training programme in this regard.
Х	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take	Initial Medical Examination (IME) and Periodical Medical Examination (PME) of all the personnel are carried out as per the Statutes and Director

	corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.	General of Mines Safety (DGMS) guideline.
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.	A full-fledged Environment Department, headed by a HoD (Environment) along with a suitable qualified multidisciplinary team of executives (12 nos.) which includes Environment, Mining, Excavation, Civil, Survey ,Electrical & mechanical, Forestry disciplines executives and technicians (4 nos.) has been established in Headquarters. They are also trained in ecological restoration, sustainable development, rainwater harvesting methods etc. At the project level, one Executive in each area has also been nominated as Project Nodal Officer (Environment) and is also entrusted with the responsibility of compliance and observance of the environmental Acts/ Laws including environment protection measures .The activities are monitored on regular basis at Area and at Head quarters levels. GM (Environment) at head quarter level, co-ordinates with all the Areas and reports to the Director (Technical) and in turn he reports to the CMD of the company. The team is multidisciplinary and very much motivated under the guidance of company's Director (Technical) and CMD. Further capacity building at both corporate and operating level is being done.
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 be reported to this Ministry and its Regional Office at Bhubaneswar.	It is being complied.
Xiii	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 .	It has been complied. Advertisement in local newspaper is enclosed as annexure-C.
xiv	A copy of the environmental clearance letter shall be marked to concern Panchayat/Zila Parishad,	Complied.

Xv	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 company's website.	Complied
AV	A copy of the environmental clearance letter shall be shall also 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 Sector and Collector's Office/Tehsildar's Office for 30 days.	Complied.
Xvi	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance 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 public domain. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM10, PM2.5, SO ₂ and NO _x (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website.	Complied.
Xvii	The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry, respective Zonal Office s of CPCB and the SPCB.	Being complied.
Xviii	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.	Shall be complied.
Xix	The Environmental statement for each financial year ending 31 March in For –V is mandated to be submitted by the project proponent for 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	Being Complied.

С	Other Conditions by MOEF:	
_	onial delianters by fire	
i	The Ministry or any other	Agree.
	competent authority may stipulate	
	any further condition for	
	environmental protection.	
ii	Failure to comply with any of the	Agree.
	conditions mentioned above may	
	result in withdrawal of this	
	clearance and attract the provisions	
	of the Environment (Protection) Act,	
	1986.	
iii	The above conditions	It is being complied.
ĺ	will be enforced	
	<i>inter-alia</i> , 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	
1	Public Liability Insurance Act, 1991	
	along with their amendments and	
	Rules. The proponent shall ensure	
	to undertake and provide for the	
1	costs incurred for taking up	
	remedial measures in case of soil	
	contamination, contamination of	
1	groundwater and surface water, and	
	occupational and other diseases due	
	to the mining operations.	Agree
iv	The Environmental Clearance is	Agree.
	subject to the outcome of the Writ	
	Petition filed by M/S Bharat Coking	
	Coal Limited (BCCL) in response to	
	the closure orders issued by the Jharkhand State Pollution Control	
i	Board which is pending in the Jharkhand High Court.	
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