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BHARAT COKING COAL LIMITED
(A SUBSIDIARY OF COAL INDIA LIMITED)
OFFICE OF THE GENERAL MANAGER
LODNA AREA

Ref. No:- BCCL/LA/GM/13/ 239.

Dated :- 29.11.2013

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



Sub:-Six monthly report on implementation of Environmental Measures for the period from April, 2013 to Sept, 2013 in respect of Cluster – IX Group of Mines, Lodna Area of BCCL.

Ref. No.: EC Order No – J-11015/307/2010-IA.II(M), dated – 21st May, 2013.

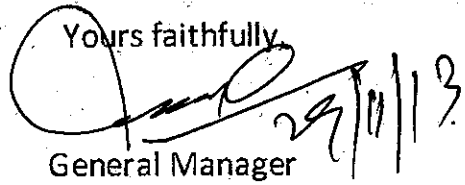
Dear Sir,

Please find enclosed herewith the Six monthly report on implementation of Environmental Measures for the period from April, 2013 to Sept, 2013 in respect of Cluster – IX Group of Mines, Lodna Area of BCCL.

Hope you will find the same in order.

Enclo : as above.

Yours faithfully,


General Manager
Lodna Area.

Cc to :-

1. Dr. Sunita Aulock, Director 1A monitoring cell, Paryavaran Bhawan CGO Complex, New Delhi-110003.
2. General Manager (Env) BCCL, Koyla Bhawan, Dhanbad.
3. General Manager (Min), Lodna Area.
4. Nodal Officer (Env), Lodna Area.
5. Office Copy.

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ENVIRONMENTAL CLEARANCE COMPLIANCE OF CLUSTER – IX.
(GRANTED VIDE – J-11015/307/2010-IA.II(M), DATED – 21ST MAY, 2013.
(Up-to September, 2013).

Sl. No	A. Specific conditions by MOEF.	Compliance.
i	The Maximum production shall not exceed beyond that for which environmental clearance has been granted.	The production from the cluster is within the limit for which environment clearance has been granted.
ii	Action should be taken to segregate and isolate the fire areas eg. trench cutting for isolation of fire. Area-wise Action Taken report for extinguishing the fire should be provided.	It is being complied.
iii	“Mission Mode programme” for extinguishing fire is required wherein scientists and other experts be involved. Any international agency may also be contacted for their expertise in extinguishing the fire in such big area.	It shall be complied.
iv	The recommendations of Indira Gandhi Centre of Atomic Research, Kalpakam should followed dealing with fire in coal mine in Jharia coalfield.	It shall be complied.
v	Transportation Plan should be submitted to the MOEF.	It shall be complied.
vi	The finalized Mine Closure Plan of Cluster – IX should be submitted to MOEF. The void should be in 30 ha. area with 30 mt. depth.	Mine closure plan as per the guideline of Ministry of coal and on the basis of cluster concept is under preparation by CMPDI.
vii	The road transportation of coal during phase – 1 should be by mechanically covered trucks. The road used for coal transportation should be developed with avenue plantation on both sides.	It shall be complied.
viii	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.	It shall be complied.
ix	Details of transportation, CSR, R&R and implementation of environmental action plan for each of the 17 clusters should be brought out in a booklet from.	It shall be complied.
x	A study should be initiated to analyze extent of reduction in pollution load every year by reducing road transport.	CMPDI Re – 2 has been requested for Source Apportionment study.
xi	The expertise available internationally should be utilized for control of fire in Jharia coalfields and for their reclamation and to further minimize time for fire and subsidence control.	It shall be complied. Presently Master Plan Approved by Govt. of India is under implementation for this purpose.
xii	The abandoned pits and voids should backfilled with OB and reclaimed with plantation and or may be used for pisciculture.	Back filling is being done. Reclamation of old dump has been taken up.
xiii	BCCL may consider setting up a separate management structure for implementing environment policy and socio-economic issued 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, methods 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 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.
xiv	The locations of monitoring stations in the Jharia Coalfields should be finalized in consultation with the Jharkhand State Pollution Control Board.	Complied.

xxx	Specific mitigative measures identified for the Jharia Coalfields in the Environmental Action plan prepared for Dhanbad as a critically polluted area and relevant for Cluster IX shall be implemented.	It shall be complied. Dhanbad Action Plan is being implemented. The salient actions of this cluster. 1. Covered transportation of coal. 2. Water sprinkling. 3. Plantation.
xxx	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 very 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 the entire Jharia Coalfields. Mineralogical composition study should be undertaken on the composition for suspended particulate matter (PM 10 and PM 2.5) in Jharia coalfields and also qualified. These studies would help ascertain source and extent of the air pollution, based on which appropriate mitigative measures could be taken.	The locations of monitoring stations has been finalized. 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.
xxxi	No ground water shall be used for the mining activities. Additional water required, if any, shall be met from mine water or y recycling / reuse of the water from the existing activities and from rainwater harvesting measures.	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 purpose. 1. Installation of Pressure filters for utilization of Mine Water. 2. Rain water Harvesting.
xxxii	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 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 including Arsenic and Fluoride during the month of May. Data thus collected shall be submitted to the Ministry of Environment & Forest and to the Central Pollution Control Board / SPCB quarterly within one month of monitoring. Rainwater harvesting measures shall be undertaken in case monitoring of water table indicates a declining trend.	It shall be complied. The work of monitoring will be done through Central Institute of Mining & Fuel Research (CIMFR), Dhanbad which has CSIR Laboratory, recognized under the EP Rules. Presently CMPDI is monitoring the ground water level. The locations of monitoring stations has been finalized.
xxxiii xxxiv	Mine discharge water shall be treated to meet standards prescribed standards before discharge into natural water course / 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. ETP shall also be provided for workshop, and CHP, if any. Effluents shall be treated to conform to prescribed standards in case discharge into the natural water course.	It is being complied. Construction of ETP / Oil grease Trap is being taken-up.
xxxv	Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil / suitable material.	Complied.
xxxvi	Sufficient coal pillars shall be left un-extracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.	Sufficient coal pillars have been left around air shafts as per the statutes and DGMS guidelines.
xxxvii	High root density tree species shall be selected and planted over areas likely to be affected by subsidence.	Identification of high root density Plant and its plantation in subsidence prone area will be taken-up.
xxxviii	Depression due to subsidence resulting in water accumulating within the low lying areas shall be filled up or drained out by cutting drains.	It shall be complied.
xxxix	Solid barriers shall be left below the roads falling within the blocks to avoid any damage to the roads.	Sufficient barriers are left for saving the surface installation and infra structures as per the statute and DGMS guidelines.

xLi	No depillaring operation shall be carried out below the township / colony.	It is being followed.
xLii	The transportation plan for conveyor-cum-rail for Cluster-IX should be dovetailed with Jharia Action plan. Road transportation of coal during Phase - 1 should be by mechanically covered trucks, which should be introduced at the earliest. The plan for conveyor-cum-rail for Cluster - IX should be dovetailed with Jharia Action Plan. The road transportation of coal during Phase - 1 should be by mechanically covered trucks.	Action has been taken for formulating adequate transportation plan for conveyor-cum-rail system of dispatch. CMPDIL has been requested to prepare the plan. By that time transportation is being done by covering vehicle with tarpaulin cover. Action for mechanically covered trucks has been taken.
xLiii	A study should be initiated to analyze extent of reduction in pollution load every year by reducing road transport.	CMPDI RI-2 has been requested for Source Apportionment Study.
xLiii	R&R of 12246 Nos. of PAF's involved. They should be rehabilitated at cost of Rs. 126092.027 Lakhs as per the approved Jharia Action Plan.	Implementation is being done as per the Master Plan.
xLiv	A detailed CSR Action plan shall be prepared for Cluster IX group of mines. Specific activities shall be identified for CSR the budget of RS. 142.55 Lakhs per year @ Rs. 5/T of coal as recurring expenditure. The 391.28 ha. of area within Cluster IX ML existing as waste land and not being acquired shall be put to productive use under CSR and developed with fruit bearing and other useful species for the local communities. In addition to afforesting 1942.12 ha. of area at the post-mining stage, the waste land / barren land within Cluster IX ML shall be rehabilitated / reclaimed as forest / agricultural land under CSR Plan in consultation with local communities. Third party evaluation shall be got carried out regularly for the proper implementation of activities undertaken in the project area under CSR. Issue raised in the public Hearing shall also be integrated with activities being taken up under CSR. The details of CSR undertaken along with budgetary provisions for the village-wise various activities and 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 company and to the local youth, who are motivated to carry out the work in future.	It shall be complied, BCCL is implementing CSR activities. A separate CSR committee has been formed for this purpose.
xLv	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.
xLvi	A final Mines Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forest 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 during mine reclamation and at the post mining stage for habitat restoration.	CMPDI has been requested to prepare "Final Mine Closure Plan along with plan for Habitat Restoration and with details of Corpus Fund"

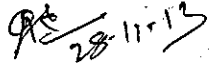
xL vii	<p>A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company for implementing environment policy and socio-economic issues and the capacity building required in this regard.</p>	<p>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.</p>
xL viii	<p>Implementation of final mine closure plan for Cluster IX, subject to obtaining prior approval of the DGMS in regard to mine safety issues.</p>	<p>Final Mines Closure Plan, as per the guideline will be submitted 5 years before the closure of the Mine. For the purpose of safety issues related to the closure prior approval of DGMS will be taken in this regard.</p>
xL ix	<p>Corporate Environment Responsibility :- The company shall have a well laid down Environment Policy approved by the Board of Directors. The environment Policy shall prescribe for standard operating process / procedures to bring into focus any infringements / deviation / violation of the environmental or forest norms / conditions. The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished. 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.</p>	<p>A well defined Corporate Environment Policy has already been laid down and approved by the Board of Directors. This also posted on BCCL website. Complied. A hierarchical system of the company to deal with environmental issue from corporate level to mine level already exists. Being complied.</p>

B i	<p>General Conditions :- No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.</p>	<p>Compliance. Being complied.</p>
ii	<p>No change in the calendar plan of production for quantum of mineral coal shall be made.</p>	<p>Being complied.</p>
iii	<p>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, SO₂ and ND_x monitoring. 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, etc carried out at least once in six months.</p>	<p>The locations of monitoring stations has been finalized. The work of monitoring of ambient environment will be done through Central Institute of Mining & Fuel Research (CIMFR), Dhanbad which is having CSIR Laboratory recognized under the EP Rules.</p>

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 recognized 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 locations of monitoring stations has been finalized. The work of monitoring of ambient environment will be done through Central Institute of Mine & Fuel Research (CMFER), Dhanbad which is having Laboratory recognized under the EO Rules. presently mine effluent is being monitoring through BCCL own Laboratory at HQ. level.
vii	Vehicular emission shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.	It shall be complied.
viii	Monitoring of environment 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 analyzed through a laboratory recognized under EPA Rules, 1986.	It is being done.
ix	Personnel working in dusty areas shall wear protective respiratory devices and they shall be also be protective respiratory with adequate training and information on safety and health aspects.	Being Complied. Vocational training Centers under separate Human Resource Development Deptt. is conducting regular training programme on these issues.
x	Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measure, 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.	Initial Medical Examination (IME) and periodical Medical Examination (PME) of all the personnel are carried out as per the Statutes and Director General of Mines Safety (DGMS) guidelines.
xi	A separate environment 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 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, 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.
xv	A copy of the environmental 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 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 environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM ₁₀ , PM _{2.5} , 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 Offices 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 Environment 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, 1996, 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.

C	Other Conditions by MOEF :	Compliance.
i	The Ministry or any other Competent Authority may stipulate any further condition(s) for environmental protection.	Agree.
ii	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.	Agree.
iii	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. the proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.	It is being complied.
iv	The Environmental clearance is 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 Board which is pending in the Jharkhand High Court.	Agree.


 General Manager (Mining)
 Lodna Area
BCCL, Dhanbad

