

BHARAT COKING COAL LIMITED

(A SUBSIDIARY OF COAL INDIA LIMITED) OFFICE OF THE GENERAL MANAGER SIJUA AREA

Ref.No.GM/SA/13/

Date: 13.07.2013

To
The Director (S),
Ministry of Environment and Forest,
Govt. of India,
Eastern Region Office,
A/3, Chandrashekarpur,
Bhubaneswar, 751023.

Sub: Six monthly reports on implementation of Environmental measures for the period from October "2012" to March "2013" in respect of Cluster V group of mines of BCCL.

E.C. Order no. J-11015/01/2011-JA.IICM) dated 11th February "2013".

Dear Sir,

Kindly find enclosed herewith the Six monthly report on implementation of environmental protection measures for the period from October "2012" to March "2013" in respect of Cluster V group of mines of BCCL.

Hope you will find the same in order.

General Manager Sijua Area, BCCL

Copy to :-

- Dr. Sunita Aulock, Director, 1A monitoring Cell, Paryavaran Bhawan, CGO Complex, New Delhi-110003.
- 2. G.M.(Env), BCCL., Koyla Bhawan, Dhanbad.
- 3. Addl.General Manager, Sijua Area.
- 4. Nodal Officer, (Env), Sijua Area.
- 5. All Project Officer, Sijua Area.
- 6. Office file.

ENVIRONMENTAL CLEARANCE COMPLIANCE OF CLUSTER-V (GRANTED VIDE J-11015/01/2011-IA.II (M) Dated 11.02.2013)

(Upto March 2013)

SL	A. SPECIFIC CONDITIONS BY MOEF:	COMPLIANCE
NO		
i	The maximum production shall not exceed beyond	The production from the cluster is within the limit
	that for which environmental clearance has been	for which environmental clearance has been
	granted for the mine of cluster V.	granted.
ii	The road transportation of coal during phase—I should be	It shall be complied.
	by trucks.	
	The road used for coal transportation should be developed	
	with avenue plantation on both sides.	
iii	The company must give priority to capacity building both	It shall be complied.
	within the company and to the local youth, who are	
	motivated to carry out the work in future.	
iv	The details of Transportation, CSR, R&R Implementation of	It shall be complied
	environmental action plan for each of the 17 clusters	·
	should be brought out in a booklet form.	
٧	A study should be initiated to analyse extent of reduction	CMPDI RI-2 has been requested for Source
	in pollution load every year by reducing road transport.	Apportionment Study.
vi	The expertise available internationally should be utilised	It shall be complied. Presently Master Plan
	for control of fire in Jharia Coalfields and for their	Approved by Govt. of India is under
	reclamation and to further minimise time for fire and	implementation for this purpose.
	subsidence control.	
vii	The abandoned pits and voids should be backfilled with OB	It shall be complied as specified in the EMP.
	and reclaimed with plantation and or may be used for	
L	pisciculture.	
viii	BCCL may consider setting up a separate management	It is being complied.
	structure for implementing environment policy and socio-	
	economic issues and the capacity building required in this regard.	
ix	The locations of monitoring stations in the Jharia	The fixing up of locations of monitoring stations in
1/	Coalfields should be finalised in consultation with the	the Jharia Coalfields has been taken up with the
	Jharkhand State Pollution Control Board.	·
		Jharkhand State Pollution Control Board. (copy
		enclosed as Annexure-B)
Х	The smoke/dust emission vary from source to source (fuel	Action has been taken For the source
	wood, coal, fly ash from TPPs, silica from natural dust, etc)	apportionment study with the help of CMPDIL.
	and a Source Apportionment Study should be got carried	Presently ambient air is being monitored through
	out for the entire Jharia Coalfields.	BCCL own Laboratory at HQ level.
xi	Mineralogical composition study should be undertaken on	The ambient environment monitoring will be done
	the composition of the suspended particulate matter	through Central Institute of Mining & Fuel
	(PM_{10} and $PM_{2.5}$) in Jharia Coalfields and also quantified.	Research (CIMFR), Dhanbad who is having CSIR
	These studies would help ascertain source and extent of	laboratory recognized under the EP Rules.
	the air pollution, based on which appropriate mitigative	
	measures could be taken.	Presently ambient air is being monitored through
		BCCL own Laboratory at HQ level.

xii	The proponent shall prepare time -series maps of the	Work has been awarded to NRSC (earlier NRSA). A
	Jharia Coalfields through NRSA to monitor and prevent fire	MoU is to be entered with the NRSC for start of
	problems in the Jharia Coalfields by Isothermal mapping	the work .For this purpose, duly signed MoU has
	/imaging and Monitoring temperatures of the coal seams	
	(whether they are close to spontaneous ignition	been sent to NRSC for necessary processing at
	temperatures) and based on which, areas with potential	their end and to start the work immediately. (Copy
	fire problems shall be identified.	enclosed as Annexure-A)
xiii	Measures to prevent ingress of air (Ventilation) in such	Action is being taken as specified in the Master
	areas, to prevent restart fresh/spread fires in other areas	Plan and EMP.
	including in mines of cluster V shall be undertaken.	
xiv	Permanent /regular ambient air monitoring is	The fixing up of locations of monitoring stations in
AIV	required for CO, CO ₂ , Methane and its homologues.	
	Monitoring station, mobile monitoring should be	the Jharia Coalfields has been taken up with the
	established at suitable location as the temp in the mine is	Jharkhand State Pollution Control Board.
	high, in the presence of CH ₄ , the coal may catch fire.	(Annexure-B)
	Presence of Aromatic compounds should be investigated	The work of monitoring of ambient environment
	as most of the aromatic compounds are carcinogenic.	will be done through Central Institute of Mining &
	as most of the diomatic compounds are caremogenic.	Fuel Research (CIMFR), Dhanbad which is having
		CSIR laboratory recognized under the EP Rules
V0.4	Local institution/university should be contacted for such	Local institutions are engaged as & when required
XV	Local institution/university should be contacted for such	in the mines.
	type of study. Exact measurement for the presence of	in the mines.
	above gases and their potential danger/harmful effect on	
	human should be assessed. ISM Dhanbad and any local	
	university could be contacted for monitoring.	the shall be a surface of feet insulance or to the state of
XVİ	The road transportation should be of bigger/high capacity	It shall be explored for implementation.
	trucks. The road should be strengthened to carry the load	
	of high capacity trucks. Railway siding with silo loading will	
	be completed by December, 2015 as informed by the	
xvii	proponents. Master Plan for dealing fire for next 12 year which is under	Govt. of India approved Master Plan and status of
XVII	implementation, Details of same from August2011 till date	action taken is uploaded on the official website of
	year-wise should be provided. An Action Plan which is in	BCCL www.bccl.gov.in.
	progress should be submitted to the Ministry.	BCCL <u>www.bccl.gov.iii</u> .
xvii	Underground mining should be taken up after completion	It shall be complied.
i	of reclamation of Opencast mine area after 15 years.	it shall be complied.
xix	No mining shall be undertaken where underground fires	It is being complied.
ΛΙΛ	continue. Measure shall be taken to prevent/ check such	it is selling complica.
	fire including in old OB dump areas where the fire could	
	start due to presence of coal /shale with sufficient carbon	
	content.	
XX	The rejects of washeries in Cluster –V should be send to	NO WASHERY AT PRESENT
,,,,	FBC based plant.	The street was a street with the street was a street with the street was a street was a street with the street was a street with the street was a st
xxi	There shall be no external OB dumps. At the end of the	Action is being taken as specified in EMP.
	mining there shall be no void and the entire mined out	Backfilling of OB is going on with mining. At the
	area shall be re-vegetated. Areas where opencast mining	
	was carried out and completed shall be reclaimed	end of mining there shall be no void and area will
	immediately thereafter.	be re-vegetated and reclaimed.
xxii	There shall be no water body left at the end of mining.	It shall be complied.
xxii	A detailed calendar plan of production with plan for OB	Calendar plan has been prepared.
i	dumping and backfilling (for OC mines) and reclamation	, , , , , , , , , , , , , , , , , , , ,
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	and final mine closure plan for each mine of cluster-V shall be drawn up and implemented.	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).
v v	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 stabilised with plantation and the periphery of the reservoir fenced. The abandoned pits and voids should be backfilled with OB and biologically reclaimed with plantation and or may be used for pisciculture	It shall be complied. A part of the void will be converted into the water body as specified in EMP.
xxv	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.	It is being followed. Action for construction of embankment has been taken as specified in EMP.
	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.	
i	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 eco-restoration work as per Road Map prepared by FRI, Dehradun.
xxv ii	Thick green belt shall be developed along undisturbed areas, mine boundary and in mine reclamation. During post mining stage, a total of 1957.08 ha area would be reclaimed. The total additional area under plantation would be 939.17 ha (green belt of 76 ha, Ext. OB dump 73.07 ha, backfilled area, 300.35 ha, other undisturbed area 489.77 ha) by planting 1878380 plants in 939.19 ha at a total cost Rs 7202.46 lakhs.	It is being complied. Yearly plantation is being done for development of green belts as per EMP.
xxv iii	The road should be provided with avenue plantation on both side as trees act as sink of carbon and other pollutant.	It shall be complied.
xxi x	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 V shall be implemented.	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 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	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 which is having CSIR laboratory recognized under the EP Rules. For

	(PM10 and PM2.5) 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 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.
i	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 due 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. Following actions has been taken by the company 1. Installation of Pressure filters for utilisation of mine water 2. Rain water Harvesting
XXX	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 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 is having CSIR laboratory recognized under the EP Rules. Presently CMPDI is monitoring the ground water level. Fixing up the monitoring stations for this purpose is under process with Jharkhand State Pollution Control Board.
xxx	Mine discharge water shall be treated to meet 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 which is having CSIR laboratory recognized under the EP Rules. Presently mine water is being monitored through BCCL own Laboratory at HQ level.
xxx	ETP shall also be provided for workshop and CHP, if any. Effluents shall be treated to confirm to prescribed standards in case discharge into the natural water course	Construction of ETP/ Oil grease Trap is being taken-up.
xxx V	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.	At present only development districts are operational at UG mines in Cluster V and no depillaring district is taken up. However regular monitoring of subsidence will be undertaken on commencement of depillaring districts.

XXX	Sufficient coal pillars shall be left unextracted around the	Sufficient coal pillars have been left around air
vi	air shaft (within the subsidence influence area) to protect	shafts as per the statutes and DGMS guidelines.
••	from any damage from subsidence, if any.	sharts as per the statutes and bolivis guidelines.
XXX	High root density tree species shall be selected and	Identification of high root density Plant and its
vii	planted over areas likely to be affected by subsidence.	plantation in subsidence prone area will be taken-
"	planted ever all all men, to be all every constituences	
		up at the time of depillaring operations.
XXX	Depression due to subsidence resulting in water	It shall be complied.
viii	accumulating within the low lying areas shall be filled up	
	or drained out by cutting drains.	
XXX	Solid barriers shall be left below the roads falling within	Sufficient barriers are left for saving the surface
ix	the blocks to avoid any damage to the roads.	installation and infra structures as per the statute
		and DGMS guidelines.
xl	No depillaring operation shall be carried out below the	It is being followed.
	township/colony.	
xli	The Transportation Plan for conveyor-cum—rail for Cluster-	Action has been taken for formulating adequate
	V should be dovetailed with Jharia Action Plan. Road	transportation plan for conveyor-cum-rail system
	transportation of coal during Phase–I should be by	of dispatch. CMPDIL has been requested to
	mechanically covered trucks, which should be introduced	prepare the plan.
	at the earliest. The Plan for conveyor-cum-rail for Cluster-	By that time transportation is being done by
	V should be dovetailed with Jharia Action Plan. The road	covering vehicle with tarpaulin cover. Action for
	transpiration of coal during phase–I should be by	
	mechanically covered trucks.	mechanically covered trucks has been taken.
xlii	A study should be initiated to analyze extent of reduction	CMPDI RI-2 has been requested for Source
	in pollution load every year by reducing road transport.	Apportionment Study.
xliii	R&R of 5835 nos of PAF's involved. They should be	Implementation is being done as per the Master
	rehabilitated at cost of shifting to safe areas at the cost of	plan.
	Rs 104024.9 Lakhs as per the approved Jharia Action Plan.	
xliv	A detailed CSR Action Plan shall be prepared for Cluster V	It shall be complied. BCCL is implementing CSR
	group of mines. Specific activities shall be identified for	activities.
	CSR the budget of Rs. 242.7 Lakhs per year@ Rs 5/T of coal	
	as recurring expenditure. The 265.25 ha of area within	
	Cluster V 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 250.57 ha of are at	
	the post-mining stage, the waste land /barren land within	
	Cluster V ML shall be rehabilitated/reclaimed as	
	forest/agricultural land under CSR Plan in consultation with local communities. Third party evaluation shall be get	
	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 local youth, who are	
	motivated to carry out the work in future. CSR should be	

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	Rs 4.6 Lakhs for cluster-V for year 2012-13 and thereafter.	
	Social Audit should be carried out for CSR for its actual	
	implementation.	
xlv	Mine Closure Plan of Cluster –V is in draft stage, the same	It shall be complied
	should be submitted to ministry	
xlvi	For monitoring land use pattern and for post mining land	Complied. Presently a time series map of
	use, a time series of land use maps, based on satellite	vegetation cover in the Jharia Coal Field is being
	imagery (on a scale of 1: 50000) of the core zone and	carried out through CMPDI Ranchi.
	buffer zone, from the start of the project until end of mine	Further CMPDI has been requested to prepare
	life shall be prepared once in 3 years (for any one	"Time series of land use maps based on satellite
	particular season which is consistent in the time series),	imagery of the core zone and buffer zone in the
	and the report submitted to MOEF and its Regional office	
	at Bhubaneswar.	scale 1:50000 for every 3 years.
xlvi	A Final Mine Closure Plan along with details of Corpus	CMPDI has been requested to prepare "Final Mine
i	Fund shall be submitted to the Ministry of Environment &	Closure Plan along with a Plan for Habitat
	Forests five year before mine closure for approval. Habitat	Restoration and with details of Corpus Fund".
	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.	
xlvi	A separate environmental management cell with suitable	A full-fledged Environment Department, headed
ii	qualified personnel shall be setup under the control of a	by a HoD (Environment) along with a suitable
	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	qualified multidisciplinary team of executives (12
		nos.) which includes Environment, Mining,
		Excavation, Civil, Survey ,Electrical & mechanical,
	in this regard.	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
		i i
		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.
1		The team is multidisciplinary and your much l
		The team is multidisciplinary and very much
		motivated under the guidance of company's
		motivated under the guidance of company's Director (Technical) and CMD. Further capacity
		motivated under the guidance of company's

xlix	Implementation of final mine closure plan for Cluster V, subject to obtaining prior approval of the DGMS in regard to mine safety issues	For the purpose of safety issues related to the closure of mine prior approval of DGMS will be taken.	
I	Corporate Environment Responsibility: a) The Company shall have a well laid down Environment Policy approved by the Board of Directors. b) 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.	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. Complied.	
	c) 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. d) To have proper checks and balances, the company shall have a well laid down system of reporting of noncompliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.	A hierarchical system of the company to deal with environmental issues from corporate level to mine level already exists. Being complied.	
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.	
ii	No change in the calendar plan of production for quantum of mineral coal shall be made.	Being complied.	
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 NOx 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.	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 which is having CSIR laboratory recognized under the EP Rules.	
iv	Data on ambient air quality (PM10, PM 2.5, SO2 and NOx) 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 recognised 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	It is being complied.	
	levels below 85 dBA in the work environment. Workers		

	engaged in blasting and drilling operations, operation of	
vi	HEMM, etc shall be provided with ear plugs/muffs. 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 19th May 1993 and 31st 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 which 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 shall 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 EPA Rules, 1986.	It is being done.
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.	Being Complied. Vocational training Centers under separate Human Resource Development Deptt. Is conducting regular training programme on these issues.
х	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. 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) 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	It is being complied.
	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.	
xiii	The Project authorities shall advertise at least in two local	It has been complied.
	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	Advertisement in local newspaper is enclosed as
	informing that the project has been accorded	annexure-C.
	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.	
xiv	A copy of the environmental clearance letter shall be	Complied.
	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	
VV	website. A copy of the environmental clearance letter shall be shall	Complied.
XV	also be displayed on the website of the concerned State	Complied.
	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.	
xvi	The clearance letter shall be uploaded on the company's	Complied.
	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, SO2 and NOx (ambient)	
	and critical sectoral parameters shall also be displayed at	
	the entrance of the project premises and mine office and	
L	in corporate office and on company's website.	10

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.	It is being complied.
xvii i	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.	It 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:	
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.	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.

Annexure- A

BCCL



Bharat Coking Coal Limited
(A Subsidiary of Coal India Limited)

Office of HOD(Environment)
Koyla Bhawan, Koyla Nagar
Dhanbad 826005

Ref. No.BCCL/HOD(Env)/F- MP/13/ 610

Dated 21.05.2013

To,

Dr Vinod Kumar,
Group Head, Geosciences group
Sc/Eng-SG
National Remote Sensing Centre
Indian Space Research Organization
Dept of Space,Govt Of India,Balanagar,Hyderabad
Andhra Pradesh-500625

Subject: Regarding proposal for "Delineation of Surface Coal Fire and associated Land Subsidence in Jharia coalfield, Jharkhand using satellite based remote-sensing techniques at a cost of Rs 19.70 Lakhs submitted by e-mail on 15.05.2013

D/Sir,

We are in receipt of the aforesaid proposal, sent by email on 15.05.2013, covering two components of the scope of study and subsequent communication by BCCL vide letter no. BCCL/D (T) Op/F-Env/2012/148(A) dated 11.02.2013:

Part 1: Coal Fire mapping of Jharia Coalfield using Thermal Infra-red data – for a cost of Rs. 6,70,721=00. The study is proposed to be completed within 8 months and

Part 2: Land subsidence mapping of Jharia Coalfield using Interferometric SAR data for a cost of Rs. 12,98,571=00. The study is proposed to be completed within 12 months.

Competent authority of BCCL has approved both the two components as above. You are therefore requested to submit your invoice for 90% amounting to 17.73 Lakhs, of the cost of the project Rs 19.00 Lakhs at the earliest for placing the work order and releasing the 90% amount.

Thanking you,

Yours faithfully,

HOD (Environment)

Annexure-B



BHARAT COKING COAL LIMITED (A Subsidiary of Coal India Limited) Office of the HOD(Environment) Koyla Bhawan, Koyla Nagar Dhanbad

Ref.No.BCCL/HOD(Envt.)/F-EC/13/262

Dated 27-02-2013

To,
The Member Secretary,
Jharkhand State Pollution Control Board,
T.A. Division Building (Ground Floor),
H.E.C., Dhurwa,
Ranchi – 834004.

Sub.: Reg. fixing locations of monitoring station for Air, Water, Noise, Ground Water.

Dear Sir.

Please refer to our earlier letter nos.BCCL/HOD(Env.)/F-EC/13/186, dated 18.2.2013 and BCCL/HOD(Env.)/F-EC/13/254, dated 27.2.2013 along with copy of environmental clearance of Clusters I, II, III, IV,V,VII,VIII, X & XVI enclosed therewith.

As per the specific conditions and general conditions laid down in the aforesaid environmental clearances granted Cluster-wise by MoEF, you are requested to advise the Regional Officer, JSPCB, Dhanbad for fixing the locations of monitoring stations for Air, Water, Noise, Ground Water.

This is required for making the compliances and report to MoEF and your good office in respect of environmental clearances granted to the Clusters.

Yours faithfully,

(Dr. EVR Raju) HOD (Environment)

Copy to :

Regional Officer, JSPCB, Dhanbad

Annexure- C

ाला	(कोल इण्डिया लिमिटेड का ए संबंधित व्यक्तियों को यह सुचित किया जाता है कि निर्मालिखित ०९ (न् मेटेड का समृह (Cluster) जिसमें 63 खाने एवं 02 वाशरीज समितिता	गै) भारत कोकिंग क
मत्रा	लय के द्वारा पर्यावरण सफाया (Environmental Clearance) र	ादान किया जा चुका
gh.	ango (Citastet) an atta	स्वीकृति आदेश संख्या एवं तिथि
1.	समूह (Cluster) । सेसर्स भारत कोव्हिंग कोल लिमिटेड, झारिया कालफिल्ह्स में रिथत, ब्लॉक चन्त्रपुत, जिला- चनबार, झारखंड की दामोदा समूह की 3 खानें- दामोदा (एलबियॉन शाखा) ओसीपी, द्वागोदा यूजीपी पूर्व दामोदा बीचे सेक्शन समुह की चानें (525 हेक्टेयर की एक सिम्पिलित एम एल क्षेत्र में 0.9 एम टी पी ए सामान्य एवं 1.17 एम टी पी ए (उच्छ))	2009-1ए. 11
2.	समूह (Cluster) ॥ : मेसर्स धारत कोकिंग कोल लिमिटेड, झारिया कोलफिल्ड्स में स्थित, जिला- धनबाद, झारखंड की 2025.71 हेक्टेयर की	
	एक सम्मिलित एम एल क्षेत्र में (20.215 एम टी यी ए की उच्च उत्पादन के साथ 15.55 एम टी यी ए सम्मिलित उत्पादन क्षमता की 5 खानें)	2011-1ए. 11 (एस) दिनांक : 6 फरवरी 2013
3.	समुड (Cluster) III : मेसर्स भारत कोकिंग कोल लिमिटेड, झारिया कोलफिल्ड्स में स्थित, जिला- धनबाद, झारखंड की 1420.61 हेक्टेबर की एक सम्मिलित एम एल क्षेत्र में 3.6 एम टी पी ए की उच्च उत्पादन की 7 खानें	जे-11015/213 2010-1ए, 11 (एम) दिनांक:
	(04.11.2010 को प्रदान की गई टी ओ आर पर आधारित ईसी)	6 फरवरी 2013
4.	समृह (Cluster) IV : गासनीटॉड कोलिक्सी धूमिगत को छोड़का पेसर्स भारत कोलिंका कोल लिमिटेड, झारिंखा कोलिंक्ट्स में रिखत, जिला- धनबाद, झारखंड की 1123.79 हेक्टेयर की एक सॉम्मिलित एम एक क्षेत्र में 2.851 एम टी पी ए (सामान्य) 3.706 एम टी पी ए (उच्च) की उत्पादन झारता के साढ़ खानें।	जे-11015/212 2010-1ए. 11 (एम) दिनांक : 6 फरवरी 2013
5.	समृह (Cluster) V: मंसर्स भारत कोकिंग कोल लिपिटेड, इगरिया कोलिकेल्ड्स में स्थित, जिला- धनबाद, झारखंड की 1957.08 हेक्टेबर की एक समिलित पम एल क्षेत्र में 4.854 (सामान्य) 6.311 (उच्च) पम टी पी ए के उत्पादन की रखानें (16.03.2011 को प्रदान की गई आई टी ओ आर पर आधारित हुँ सी)	जे-11015/01/ 2011-1ए. 11 (एम) दिनांक : 11 फरवरी 2013
6.	समृह (Ciuster) VII : मेसर्स भारत कोकिंग कोल लिमिटेड, झारिवा कोल्पिल्ल्य में स्थित, जिल्ला- धनवाब, झारखंड की 2127.7 इंटरेटर की एक समिमिलत पर एल ख़ेंच में 8-16 एम टी गी ए की उच्च उत्पादन के साथ 6-227 एम टी पी ए की समिमित क्षमता (09.12.2010 को प्रदान की गई टी ओ आर पर आधारित ईसी) (कुस्तीर भूमिगत एवं पूर्वी पगतडीह को छोड़कर)	जे-11015/238/ 2010-1ए, 11 (एम) दिनांक : 6 फरवरी 2013
7.	समृह (Cluster) X: मेससे भारत कोकिंग कोल लिमिटेड, झारिया कोलिफिल्युस में स्थित, जिला- अनवाद, झारखेड की (2057-95 रेक्ट्रेय की एक समिलिकार मा एल क्षेत्र में 1.762 एम टी पीए की सामान्य एटं 2.289 एम टी पी ए की उच्च उत्पादन की 6 खानें) एवं 18 रेक्ट्रेय के एक क्षेत्र के रिलए 1.6 एम टी पी ए सामान्य तथा 2.08 एम टी पी ए उच्च उत्पादन की सुवामडीह कोल च्यारी (सुवामडीह ग्रॉफ्ट माईन के लीज होल्ड के अन्दर) (09.02.2011 को प्रदान की गुड़े टी ओ आर पर आधारित हैं सी)	जे-11015/380/ 2010-1ए. 11 (एम) दिनांक : 6 फरवरी 2013
8.	समृह (Cluster) XVI: मेसर्स भारत कोकिंग कोल लिमिटेड, जिला- धनवाद, झारखंड में कोचला खार्ने (द्वशिवाड़ी - क्यतेंनीमाता जो सी पी, बसत्तेंनामाता भूमिगत खान, नई लायकडीह ओ सी पी (व्हशिवाड़ी कोल वाशरी सहित), लायकडीह डींग भूमिगत, चाँच भूमिनत) (1964.2) हेक्टेस के एक सम्मिलत एम एल क्षेत्र में 1.51 एम टी पी ए सामान्य तथा 1.963 एम टी पी ए उच्च) तथा 12 हेक्टेसर के क्षेत्र में 1.6 एम टी पी ए की दर्शवाड़ी जाशरी (28.05.2010 को प्रदान की गई टी ओ आर पर आधारितई सी)	जे-11015/185/ 2010-1ए, 11 (एम) दिनांक : 6 फरवरी 2013
9.	कोलफिल्ड्स में स्थित, जिला- घनबाद, झारखंड के 10 खानों का समूह (1183.92 हेक्टेयर के एक सम्मिलित एम एल क्षेत्र में 5.603 एम टी भी ए की	जे-11015/298/ 2010-1ए, 11 (एम) दिनांक : 15 फरवरी 2013

CIL	s is to bring into notice of all concerned that th sters of BCCL consisting of 63 Mines and 02 w vironmental Clearances by Ministry of Environ	asheries are grant
SI. No	Name of the Cluster	Sanction order
1.	Cluster-I (Damoda Group of 3 Mines - Damoda (Albion Section) OCP, Damoda UGP and Damoda BJ Section OCP) Group of Mines (of 0.9 MTPA normative and 1.17 MTPA (peak) in a combined ML area of 575 ha) of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, Block Chandrapur, Dist. Dhanbad, Jharkhand.	J-11015/93/2009 1A.li (M) dated 6t Feb. 2013
2.	Cluster-II (6 mines of a combined prod. capacity 15.55 MTPA with a peak production of 20.215 MTPA) in a combined ML area of 2025.71 ha) of Wis Bharat Coking Coal Ltd., located in Jharia Coalfields, Dist. Dhanbad, Jharkhand.	J-11015/35/2011 1A.II (M) dated 60 Feb. 2013
3.	Cluster-III (7 mines of a peak production of 3.6 MTPA in a combined ML area of 1420.61 ha) of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, Dist. Dhanbad, Jharkhand (EC based on TOR granted on 04.11,2010).	1A.II (M) dated 6t Feb. 2013
4.	Cluster-IV (6 mines with production capacity 2.851 MTPA (Normative) 3.706 MTPA (Peak) in a combined ML area of 1/23.79 ha) of Mis Bharat Coking Coal Ltd., located in Jharia Coalfields, Dist: Dhanbad, Jharkhand excluding Gasiltand Colliery UG.	J-11015/212/2010 1A.JI (M) dated 6t Feb. 2013
5.	Cluster-V (7 mines of a 4.854 (Normative) and 6.311 (Peak) production of MTPA in a combined ML area of 1957.08 ha) of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, Dist. Dhanbad, Jharkhand (EC based on TOR granted on 16.03.2011).	J-11015/01/2011 1A.II (M) dated 11tl Feb. 2013
6.	Cluster-VII (combined capacity 6.227 MTPA with a peak prodn. of 8.16 MTPA in a combined ML area of 2127.7 ha) of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, Dist. Dhanbad, Jharkhand (EC based on TOR granted on 09.12.2010) (excluding Kustore UG and East Bhuggaidh).	J-11015/238/2010 1A.II.(M) dated 6th Feb. 2013
7.	Cluster-X (6 mines of 1.762 MTPA of normative and peak production of 2.289 MTPA in a combined ML area of 2057.95 ha) and Sudamdih Coal Washery (Within the lease hold of Sudamdih Shaft Mine) of 1.6 MTPA of normative and 2,08 MTPA peak production for a area of 18 ha) of M/s Bharat Coking Coal Ltd., located in Jharia Coaffields, Dist. Dhanbad, Jharkhand (EC based on TOR granted on 09.02.2011).	J-11015/380/2010 1A.II (M) dated 6th Feb. 2013
	OCP, Basantimata under Ground Mine, New Laikdih OCP (including Dahibari Coal Washery), Laikdih Deep UG, Chanch UG) (normative 1.51 MTPA and 1.963 MTPA peak in a combined ML area of 1964.21 ha) and Dahibari washery of 1.6 MTPA in the area of 12 ha of M/s Bharat Coking Coal Ltd., in Dist. Dhanbad, Jharkhand (EC based on TOR granted on 28.05.2010).	J-11015/185/2010 1A.II (M) dated 6th Feb. 2013
	Cluster-VIII Group of 10 Mines (combined capacity 4.31 MTPA with a peak prodn. of 5.603 MTPA in a combined ML area of 1183.92 ha (1200.41 ha-1649 ha=1183.92 ha) of M/s Bharatt Coking Coal Ltd., located in Jharia Coalfields, Dist. Dhanbad, Jharkhand.	Feb. 2013
ollu f Er	copy of the clearance letter is available with the control Board and may also be seen at the wivernmental and forests at http://envfor.nic.in/ite of BCCL at http://www.bccl.gov.in	ehsite of the Ministry