## Bharat coking coal Limited

(A Subsidiary of Coal India Limited)
OFFICE OF THE OBNERAL MANAGER
CHANCH-VICTORIA AREA-XII
P.O.-BARAKAR - 713324, DIST-BURDWAN (W.B.)
Phone: 96540-272126: FAX 0341-252(963)

Ref. No: BCCL/XII/ACE Bnv./2013-14/17-06

Date: 11/12/13

To,
The Director(S),
Ministry of Environment & Forest, Govt. of India,
Eastern region office.
A/3, Chandrashekharpur,
Bhubaneshwar-751023,

Sub. — <u>Six monthly Reports on Implimentation of Environmental Measures for the period from April 2013 to Sept. 2013 in respect of Charter-XVI group of mines of BCCL.</u>

Dear Sir,

Enclosed please find herewith the six monthly report on implementation of Environmental protection measure for the period from April 2013 to Sept. 2013 in respect of clusture-XVI group of mines of BCCL.

Hope you will find the same in order

Encl: a/a.

Yours faithfully,

C.V. Area

c.c to (1) Dr. Sunita Aulock, Director 1A monitoring cell, Paryavaran Bhawan CGO Complex, New Delhi-110003

(2) GM (Env.) BCCL, Koyla Bhawan, Dhanbad

(3) Area Manager (Plg), C.V. Area.(4) Nodal Officer (Civil), C.V. Area.

(5) Office Copy

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# COMPLIANCE OF EC CONDITIONS OF CLUSTER-XVI EC order no- J-11015/185/2010-IA.II(M) dated 6.2.2013 Upto Sept. 2013

SI.	A. Specific Conditions by MOEF:	compliance
no.	The maximum production shall not	The approved normative production and peak
•	exceed beyond that for which	production are 1.51MTPA & 1.963 MTPA
	environmental clearance has been granted for	respectively. The total production of the
	the 14 mine of cluster XVI as below:	cluster is 1.43 MT in the year 12-13 which is
		well within the limit.
ii	All the void /water bodies should be backfilled	This is being done.
	upto ground level and no OB dump at the end	This is being done.
	of mining.	
iii	Extensive plantation should be provided on	It shall be complied. Yearly plantation is being
	either side of River;	done for development of green belts as per
		EMP.
iv	Impact of mining on ground water of the area	The work of monitoring of ambient
	(Impact Zone) should be provided;	environment including ground water
		monitoring has already been awarded to
		Central Institute of Mining & Fuel Research
		(CIMFR), Dhanbad having CSIR laboratory
		recognized under the EP Rules.
		Fixing up the monitoring stations for this
		purpose is in process with Jharkhand State
		Pollution Control Board.
V	A Garland drain should be provided	It is being done.
vi	Excess water from mine after treatment should	At present excess water from mine is supplied
vii	be supplied to the villagers;	to the villages through settling pond.
VII	Rejects of washery along with dry carbon slurry should be utilized in power plant and other	There is no washery at present.
	recognized vendors.	
viii	A time schedule for filling of existing and	4 no.s abandoned quallies have already been
	abandoned quarries be done.	filled up.
ix	The measure identified in the environmental	Master Plan activities are dovetailed with
	plan for cluster XVI groups of mine and the	compliance of environmental clearance
	conditions given in this environmental	conditions.
	clearance letter shall be dovetailed to the implementation of the Jharia Action Plan.	
x	As there is no fire in Cluster XVI but the	Work has been awarded to NRSC (earlier
	measure should be adopted by proponent to	NRSA). A MoU is to be entered with the NRSC
	control spread of neighbouring fire to this	for start of the work .For this purpose, duly
		Tor start or the work if or this purpose, duly

	Cluster XVI. The proponent shall prepare time -	signed MOU from our end has been sent to
	series maps of the Jharia Coalfields through	NRSC for necessary processing at their end
	NRSA to monitor and prevent fire problems in	and to start the work immediately .(Copy
	the Jharia Coalfields by Isothermal mapping	enclosed as Annexure-A)
	/imaging and monitoring temperatures of the	enclosed as Affreda e 14)
	coal seams (whether they are close to	
	spontaneous ignition temperatures) and based	
	on which, areas with potential fire problems	Action is being taken as specified in EC and as
	shall be identified. Measures to prevent ingress	per Jharia Master Plan.
	of air (Ventilation) in such areas, to prevent	
	restart fresh/spread fires in other areas	
	including in mines of cluster XIV shall be	
	undertaken.	
	Underground mining should be taken up after	It shall be complied. Mining is being done as
xi	completion of reclamation of Opencast mine	per the guidelines and approval/ permission
	area after 2 years.	of DGMS.
xii	No mining shall be undertaken where	It is being complied.
XII	underground fires continue. Measure shall be	
	taken to prevent/ check such fire including in	
	old OB dump	
!!!	A part of cluster XVI is under Barakar River and	At present there is no underground minig
xiii	Damodar River. It was clarified that although	operation below River Damodar.
	the mine is underground, there is no coal	
	underneath River Damodar, which would be	
	mined. The Committee desired that the data of	
	bore wells near River Damodar require to be	
	monitored for permeability and seepage of	
	waster of River Damodar.	
xiv	The rejects of washeries in Cluster –XVI should	Coal Washery has not yet started.
λ	he send to FBC based plant.	IC 1: FAAD For
XV	There shall be no external OB dumps. OB	Action is being taken as specified in EMP. For
~•	produce from the whole cluster will be 29.01	Backfilling of OB concurrent with himself
	Mm <sup>3</sup> OB from One Patch OCP mine shall be	Also old OCP of Pre-flationalization is being
	hackfilled. At the end of the mining there shall	filled up.
	he 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.	
xvi	A detailed calendar plan of production with	Calendar plan has been prepared.Mine
	plan for OB dumping and backfilling (for OC	·   closure plan as per the guidelines of willingtry
	mines) and reclamation and final mine closure	of Coal and on the basis of clustuter concept
	plan for each mine of cluster- XVI shall be	is under preparation by CMPDI.
1.	drawn up and implemented.	
xvii	The void in 5 ha area shall be converted into	It shall be complied. Continuous process of the backfilling has been adopted. A part of the
	water reservoir of a maximum depth of 15-20	the backfilling has been adopted. A part of a
	m in post mining stage and shall be gentle	y void will be converted into the water body a
1	sloped and the upper benches of the reservoi	

	shall be stabilised with plantation and the	
	periphery of the reservoir fenced. The	
	handoned nits and voids should be backlined	
	OR and biologically reclaimed with	
	plantation and or may be used for pisciculture	Mining is being carried out as per Statute
xviii	Takining shall be carried out as per statuette	from the streams/nalas following within th
	from the streams/nalas flowing within the	from the streams/halas following assets
	lease and maintaining a safe distance from the	lease and maintaining a safe distance from
	had slowing along the lease boundary.	the nalas following along the lease boundary.
	and the harrier of a minimum 60m width shall be	
	maintained along the nalas/water bodies. The	
	ameli water hodies in OC shall be protected to	
	the extent feasible and the embankment	
	proposed along water body shall be	
	etrongthened with stone pitching.	and near water hodies
	Active OB dumps near water bodies and rivers	No OB is being dumped near water bodies.
xix	should be rehandled for backfilling abandoned	The OB dumps created earlier already
	mine voids. However, those which have been	stabilized & further action has been taken for
	biologically reclaimed need not be disturbed.	their eco-restoration work as per Road Map
	biologically reciding the	prepared by FRI, Dehradun and as per the
		action plan of Prof. CR Babu ,Professor
		Emirates CEMDE, Delhi University.
	Thick green belt shall be developed along	It shall be complied.
XX	undisturbed areas, mine boundary and in mine	
	reclamation. During post mining stage, a total	
	of 242.09ha area would be reclaimed by	
	planting native species in consultation with the	
	local DFO/Agriculture Department/institution	
	with the relevant discipline. The density of the	
	with the relevant discipline. The density	
	trees shall be around 2500 plants per ha.	
	The road should be provided with avenue	It shall be complied.
xxi	plantation on both side as trees act as sink o	
	plantation on both side as trees det us similar	
	carbon and other pollutant.	Dhanbad Action Plan has been prepared in
xxi	Specific mitigative measures identified for the	consultation with Jharkhand Pollution Contro
	Jharia Coalfields in the Environmental Action	Board for entire BCCL and not clusterwise. It
	Plan prepared for Dhanbad as a critically	
	polluted are and relevant for Cluster -XVI shall	is being implemented comprehensively to a
	be implemented.	the mines of BCCL. Some of the salient actio
-		of this cluster are as under:
		1. Construction of pucca road
		a. Construction of Pucca Road fro
		PWD Road to Rly. Siding, NLO
		b. Construction of PCC Road at R
		colony.
		2. Construction of water
- 1		

reservoir for mine water utilization 3. Plantation. Establishment of ambient environment quality The locations of monitoring stations in the xxiii monitoring stations is already in process and Jharia Coalfields should be finalized in consultation with the Jharkhand State Pollution Jharkhand State Pollution Control Board is Control Board. The Committee stated that being pursued in this regard. smoke/dust emission vary from source to The work of monitoring of ambient source (fuel wood, coal, flyash from TPPs, silica environment has already been awarded to from natural dust, etc) and a Source Central Institute of Mining & Fuel Research Apportionment Study should be got carried out (CIMFR), Dhanbad who is having CSIR for the entire Jharia Coalfields. Mineralogical laboratory recognized under the EP Rules. composition study should be undertaken on the composition of the suspended particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) in Jharia Coalfields Presently ambient air is being monitored and also quantified. These studies would help through BCCL own Laboratory at HQ level. It is ascertain source and extent of the air pollution, being complied. based on which appropriate mitigative For the source apportionment study the measures could be taken. action has been taken to conduct with help of CMPDIL,RI-II. No ground water is being utilized for the No groundwater shall be used for the mining xxiv purpose of industrial use of the water. Mine activities. Additional water required, if any, water has been channelized through pipelines shall be met from mine water or by recycling/reuse of the water from the existing and through delivery in to the ponds for its is activities and from rainwater harvesting for the community and irrigation purposes. measures. The project authorities shall meet Drinking water is being purchased from the water requirement of nearby village(s) in case Mineral Area Development Authority (MADA). the village wells go dry to dewatering of mine. Further for the utilization of mine water following actions has been taken by the company 1. Installation of Pressure filters: BCCL has installed 25 pressure filter plants of total capacity of 16 MGD at the cost of Rs. 2.75 crores to meet the drinking water requirements in the area. More pressure filters shall be put in to operation. 2. Rain water Harvesting: to catch run-off water in colonies Rain water Harvesting is being done. BCCL has already awarded work for 138 houses at Koylanagar Township covering surface area of 14450 sq mts of roof top with total cost of Rs77.36 lakhs. It has been estimated that the system will recharge 13150 cum of

		water per annum to the ground water.  3. Further approximately 2000 quarters of BCCL under different Areas of BCCL will be taken up in the 2013-14 for Rain Water Harvesting.
	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 Roard/SPCB quarterly within one month of	The work of monitoring of ambient environment including ground water monitoring has already been awarded to Central Institute of Mining & Fuel Research (CIMFR), Dhanbad having CSIR laboratory recognized under the EP Rules. Fixing up the monitoring stations for this purpose is in process with Jharkhand State Pollution Control Board.
	monitoring. Rainwater harvesting measures shall be undertaken in case monitoring of water table indicates a declining trend.  Mine discharge water shall be treated to meet	It shall be complied.
xxvi	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	
xxvii	website.  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.
xxviii	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	At present only development districts are operational at UG mines in Cluster XVI and no depillaring district is taken up. However regular monitoring of subsidence will be undertaken on operating depillaring districts.
xxix	and clayey soil/suitable material.  Sufficient coal pillars shall be left unextracted around the air shaft (within the subsidence)	Sufficient coal pillars have been left around a shafts as per the statutes and DGMS

	influence area) to protect from any damage	guidelines.
	s and subsidence if any.	Identification of high root density Plant and its
XXX	High root density tree species shall be selected	plantation in subsidence prone area is in the
,,,,,	and planted over areas likely to be affected by	
	1 11	process.
		The plantation programme will include such
		plants.
	heidence resulting in	It is complied.
xxxi	Depression due to subsidence resulting in	,
	water accumulating within the low lying areas	
	shall be filled up or drained out by cutting	1.6
	drains.  Solid barriers shall be left below the roads	It is being followed. Sufficient barriers are left
xxxii	Solid barriers shall be left below the	for saving the surface installation and infra
	falling within the blocks to avoid any	structures as per the statute and DGMS
<b>.</b>	damage to the roads.	l .
		guidelines.
xxxiii	No depillaring operation shall be carried out	It is followed.
XXXIII	to allow the township/colony.	to the top for formulating
xxxiv	The Transportation Plan for conveyor-cum-rail	Action has been taken for formulating
XXXIV	for Cluster. XVI should be doveraged with	adequate transportation plan for conveyor
	theria Action Plan. Road transportation of coal	cum rail system of dispatch. Civil Bit, in a second
	had be by mechanically	heen requested to conduct study and prepare
1	severed trucks, which should be introduced at	the plan in this regarding.
	the parliest The Plan for conveyor-cum-lan ion	of ovicting truck in to mechanical
	cluster VIV should be dovetailed with Jharia	
	Action Plan The road transpiration of coal	tovered transfer is hein
	during phase-I should be by mechanically	
-	covered trucks.	TOTAL DA COACLINE ASSISTANT
	A study should be initiated to analyze extent o	f CMPDI RI-2 has been requested for Source
xxxv	reduction in pollution load every year by	Apportionment Study.
	reduction in political load cost,	
	reducing road transport.  R&R of 1193 nos of PAF's involved. They should be a control of the con	d Action of Master plan is being completed as
· xxxv	be rehabilitated at cost of Rs 10171.88 lakhs a	
	per the approved Jharia Action Plan.	
		It is being monitored at BCCL HQ level.
xxx	implementation of environmental action plan	·
	for each of the 17 clusters should be brought	
	out in a booklet for and submitted to Ministry	
	Dian chall he breddig	lt shall be complied. BCCL is implementing
xxx	viii A detailed CSR Action Plan Shah be properly	
	for Cluster XVI croup of mines. Specificactivities shall be identified for CSR of	Rs
	activities shall be identified for cost production	n.
1	20.25/annum @ of Rs 5/ton of coal production	ea
	as recurring expenditure. The 242.09ha of ar	nd
	within Cluster XVI ML existing as waste la	to
1	and not being acquired shall be put productive use under CSR and developed w	ith
1		

	fruit bearing and other useful species for the 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.	
xxxix	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.	Presently a time series map of vegetation cover in the Jharia Coal Field is being carried out through CMPDI Ranchi using satellite imagery for every 3 years. The last map of the year 2010-11 has been uploaded on the official website of company. 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 1:5000.
xl	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	CMPDI, Ranchi has been requested to prepare "Final Mine Closure Plan along with a Plan for Habitat Restoration and with details of Corpus Fund".
xli	habitat restoration.  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 companyfor implementing environment policy and socio-economic issues and the capacity building required in this regard.	headed by a HoD (Environment) along with a suitable qualified multidisciplinary team of executives (12 nos.) which include Environment Mining Excavation, Civil, Surve

		rained 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
		efficiency of the
		compliance and observance
		Ellalloullieura , resel
		environment protection measures .The
ļ		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.
	and the sleeping plan for	Final Mine Closure Plan, as per the guideline
xlii	Implementation of final mine closure plan for	will be submitted 5 years before the closure of
	Cluster XVI, subject to obtaining prior approval	the Mine. For the purpose of safety issues
	of the DGMS in regard to mine safety issues	related to the closure prior approval of DGMS
		will be taken in this regard.
xliii	Corporate Environment Responsibility:	
	n I-t-I deve	S. J. Compared Environment Policy
	a) The Company shall have a well laid down	A well defined Corporate Environment Policy
	Environment Policy approved by the Board	has already been laid down and approved by
	of Directors.	the Board of Directors. This is also posted on
	nescribe for	BCCL website.
	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.	Complica
	c) The hierarchical system or Administrative	
	Order of the company to deal with	n
	environmental issues and for ensuring	g
	compliance with the environmenta	ıl
	clearance conditions shall be furnished.	
	d) To have proper checks and balances, th	

	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.	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.	It is being followed.
	No change in the calendar plan of production	Being followed. Production is being done well
"	for quantum of mineral coal shall be made	within the peak production capacity as per EC.
iii	Four ambient air quality monitoring stations	Establishment of Four ambient air quality
	shall be established in the core zone as well as	monitoring stations is already in process and
	in the buffer zone for PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NOx	Jharkhand State Pollution Control Board is
	monitoring. Location of the stations shall be decided based on the meteorological data,	being pursued in this regard.
	topographical features and environmentally	The work of monitoring of ambien
	and ecologically sensitive targets in	environment has already been awarded t
	consultation with the State Pollution Control	Central Institute of Mining & Fuel Research
	Board. Monitoring of heavy metals such as Hg,	(CIMFR), Dhanbad having CSIR laborator
	As, Ni, Cd, Cr, etc carried out at least once in six months.	
iv	Data on ambient air quality (PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub>	It shall be complied.
	and NO <sub>x</sub> ) 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	1
	analysis from independent laboratories	
	recognised under the EPA rules, 1986 shall be	
	furnished as part of compliance report.	I It is being complied.
V	Adequate measures shall be taken for contro of noise levels below 85 dBA in the worl	l .
	environment. Workers engaged in blasting and	ì
	drilling operations, operation of HEMM, et	c
	shall be provided with ear plugs/muffs.	Establishment of monitoring stations
	, priest and principles and a contract to the	

	wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19 <sup>th</sup> May 1993 and 31 <sup>st</sup> December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.	already in process and Jharkhand State Pollution Control Board is being pursued in this regard.  The work of monitoring of ambient environment has already been accepted by Central Institute of Mining & Fuel Research (CIMFR), Dhanbad having CSIR 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 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.	Dust mask is being provided to personel works in dusti areas.
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.	also being maintained.
хi	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.	headed by a HoD (Environment) along with a

		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
		Citi Citi Citi Citi Citi Citi Citi Citi
		activities are monitored on regular basis a
		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	It is being followed.
	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.	
xiii	The Project authorities shall advertise at least	It has been complied.
	in two local newspapers widely circulated	
	around the project, one of which shall be in the	Advertisement in local newspaper is enclosed
	vernacular language of the locality concerned	as Annexure-c.
	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.	
xiv	A copy of the environmental clearance letter	Complied.
	shall be marked to concern Panchayat/	
	ZilaParishad, 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	
	, coordan trime processing and property	

13 A		on company's website.	
4.1	XV	A copy of the environmental clearance letter	Complied.
		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.	
	xvi	The clearance letter shall be uploaded on	Complied.
		the company's website. The compliance	
	İ	status of the stipulated environmental	
		clearance conditions shall also be uploaded by	
j.,		the project authorities on their website and	
	1	updated at least once every six months so as to	·
		bring the same in public domain. The	
		monitoring data of environmental quality	
	1	parameter (air, water, noise and soil) and	
. •		critical pollutant such as PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and	·
		NO <sub>x</sub> (ambient) and critical sectoral parameters	
		shall also be displayed at the entrance of the	
	1	project premises and mine office and in	
20		corporate office and on company's website.	
	xvii	The project proponent shall submit six monthly	It is being complied.
		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.	
	xviii	The Regional Office of this Ministry located at	Shall be complied.
		Bhubaneswar shall monitor compliance of the	
		stipulated conditions. The Project authorities	
Ήſ		shall extend full cooperation to the office(s) of	
11(1)		the Regional Office by furnishing the requisite	
		data/information/monitoring reports.	
	xix	The Environmental statement for each financial	Being complied.
		year ending 31 March in For -V is mandated to	
		be submitted by the project proponent for the	
		concerned State Pollution Control Board as	
	1.	prescribed under the Environment (Protection)	
		Rules, 1986, as amended subsequently, shall	
		also be uploaded on the company's website	
1		along with the status of compliance of EC	
13/4		conditions and shall be sent to the respective	
		Regional Offices of the MoEF by E-mail	
		~	

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General Manager, CV Area Bacci

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## **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

То,

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 datafor a cost of Rs. 12,98,571=00. The study is proposed to be completed within 12

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

