

JPL/EMD/F-30/Washery/2020/ 🦫 🥆 🛕

25/05/2020

The Regional Director (S),
Ministry of Environment and Forests,
Regional office (WCZ)
Ground Floor, East Wing
New Secretariat Building
Civil Line, Nagpur - 440001 (Maharashtra)

Sub.:-Submission of Half Yearly Environmental Clearance Compliance Report of Gare IV/2 and IV/3 Opencast and Underground Coal Mining Project of a combined production of 6.25 MTPA (OCP from 5.25 MTPA to 6.25 MTPA and 0.75 MTPA production in UGP) in an ML area of 964.65 ha and for establishment of a pit-head coal washery of 4.75 MTPA (800 TPH) within the Gare IV/2 and IV/3 ML of M/s Jindal Power Limited, Tamnar, Distt.- Raigarh (C.G.) for the period of October,2019 to March,2020.

Ref.: - Environmental Clearance No. J.11015/288/2007-IA.II (M) dated 12th June 2012.

#### Dear Sir,

This has reference to the above cited subject. Enclosed please find herewith half yearly Environmental Clearance Compliance Report of Gare IV/2 and IV/3 Opencast and Underground Coal Mining Project of a combined production of 6.25 MTPA (OCP from 5.25 MTPA to 6.25 MTPA and 0.75 MTPA production in UGP) in an ML area of 964.65 ha and for establishment of a pit-head coal washery of 4.75 MTPA (800 TPH) within the Gare IV/2 and IV/3 ML of M/s Jindal Power Limited, at Gharghoda Tehsil, Raigarh district, Chhattisgarh for the period from **October,2019 to March,2020** both in hard and soft (through mail) copies.

Trust that you will find the above information in order.

Thanking you,

Yours faithfully, For JINDAL POWER LIMITED

Shiv kumar Singh General Manager -EMD

Encl. : As above.

Cc:

The Director,
Ministry of Environment, Forest
and Climate Change
Indira Paryavaran Bhavan
Jorbagh Road
New Delhi - 110 003

The Zonal Officer, Central Pollution Control Board, 3<sup>rd</sup> Floor,Sahkar Bhawan, North T.T.Nagar, Bhopal-462 003 (M.P) The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sec.19 Naya Raipur (CG) -490099

Compliance Report of Environmental Clearance for Gare IV/2 and IV/3 Opencast and Underground coal mining project of a combined production of 6.25 MTPA and establishment of pit-head coal washery of 4.75 MTPA (800TPH) issued vide letter No.J.11015/288/2007-IA.II (M) dated 12<sup>th</sup> June 2012.

**Note:** Kindly note that the Gare Palma IV/2 & IV/3 Coal mine, which was earlier allotted to M/s Jindal Power Limited (JPL), has since been de-allocated in terms of the Judgement dt. 24.09.2014 passed by Hon'ble Supreme Court.

Subsequently, during the litigation arising out of auction of the said mine, Hon'ble Delhi High Court appointed M/s Coal India Limited (CIL) as Designated Custodian of the said coal mine akin to Designated Custodian contemplated under Section 18 of the Coal Mines (Special Provisions) Act 2015.

CIL further authorized its subsidiary M/s South Eastern Coalfields Limited (SECL) to manage and operate the said mine as Designated Custodian.

In addition, the Hon'ble High Court of Delhi, vide interim directions, permitted to retain control over Coal Washery, Coal Handling unit and Cross Country Pipe Conveyor, which M/ JPL is continuing to operate.

The aforesaid situation is continuing by virtue of status quo directions dated 07.04.2017 passed by Hon'ble Supreme Court in the matter arising out of aforesaid Delhi High Court proceedings.

Therefore, JPL is submitting the Compliance Report of Environment Clearance for Washery, Coal Handling Plant and Cross Country Pipe Conveyor.

S.No	Conditions	Compliance Status
A. Spec	ific conditions :	
(i)	Maximum production by opencast mining shall not exceed 6.25 MTPA and that by underground mining shall not exceed 0.75 MTPA. The maximum combined production at any given time shall not exceed 6.25 MTPA from both opencast and underground mining.	
(ii)	The mining operations shall be opencast during the first 34 years and underground mining shall begin from the 3 <sup>rd</sup> year and continue until the end of mine life.	Not Applicable
(iii)	Before starting underground mining, the void shall be properly backfilled, stabilised and reclamation undertaken. Sufficient parting shall be maintained between the bottom most OC seam and top most UG seam.	Not Applicable
(iv)	Diversion of Bendra Nala flowing through the ML area for a total length of 1230m shall be undertaken under the supervision of Hasdeo Kacher Water Resource Department (WRD), Bilaspur. The diversion channel of Bendra nala shall follow the natural gradient and join	Not Applicable

Г		
	at the point of original exit at the ML boundary in its original course, so that the downstream users of Bendra Nala are not affected due to the proposed diversion. Monitoring of water quality of River Kelo and Bendra Nala upstream and downstream of the mine shall be monitored as per General Standards prescribed under EPA Rules, 1986 and data thereon uploaded regularly on the company website and also furnished as part of the Compliance Report to MOEF RO, Bhopal.	
(v)	Mining shall be carried out as per statute at a safe distance from River Kelo. The embankment of 5 Km length being constructed between River Kelo and the ML boundary shall be at least 6m higher than the HFL of River Kelo.	Not Applicable
(vi)	The proponent shall strengthen the embankment along the diverted stretch of the Bendra Nala and along River Kelo adjoining the boundary of the mine using large boulders in wire mesh along diverted Bendra nala and then along the eastern bank of Kelo river and grouting of weak portions of the embankment to protect the mine from flooding. The slope of the embankment towards the river shall at least 1:3 for stability and shall be stabilized with plantation using native species selected from the study area.	Not Applicable
(vii)	Top soil shall be stored in the earmarked area and used for green belt development and for plantation/reclamation within a year of its generation. Green belt development shall be completed within the first 3 years of mining operation.	Not Applicable
(viii)	OB shall be stacked at earmarked external OB dumpsites of 48.40 ha within ML area. The maximum height of the external OB dump shall not exceed 60m. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on yearly basis.	Not Applicable
(ix)	Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area,	Not Applicable

drains should be regularly de-slited and maintained properly.  (X) Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.  (Xi) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.  (Xii) During underground mining, while extracting panels in the lower seam, all water bodies in the subsidence area shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the lower seam is worked to prevent accumulation of large water bodies over working area. At the time of depillaring, protective bunds and garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.  (Xiii) Capacity of the provided so that no water from the surface enters the subsidence area and the shaft.  (Xiv) Solid barriers shall be left below habitation, agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per policy/rules.  (Xiv) 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. Crushers at the CHP shall be operated with		un ada ana ana la	
maintained properly.  (X) Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.  (Xi) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.  (Xii) During underground mining, while extracting panels in the lower seam, all water bodies in the subsidence area shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the lower seam is worked to prevent accumulation of large water bodies over working area. At the time of depillaring, protective bunds and garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.  (xiii) Sufficient coal pillars shall be left unextracted around the airshaft (within the subsidence area in the shaft.  (xiii) Sufficient coal pillars shall be left below habitation, agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per policy/rules.  (xv) 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.		roads, green belt development etc. The	
(xi) Carland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of sit material.  (xi) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.  (xii) During underground mining, while extracting panels in the lower seam, all water bodies in the subsidence area shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the lower seam is worked to prevent accumulation of large water bodies over working area. At the time of depillaring, protective bunds and garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.  (xiii) Sufficient coal pillars shall be left unextracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.  (xiv) Solid barriers shall be left below habitation, agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per policy/rules.  (xv) 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.			
and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of sit material.  (xi) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and silitation shall be based on the rainfall data.  (xii) During underground mining, while extracting panels in the lower seam, all water bodies in the subsidence area shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the lower seam is worked to prevent accumulation of large water bodies over working area. At the time of depillaring, protective bunds and garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.  (xiii) Sufficient coal pillars shall be left unextracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.  (xiv) Solid barriers shall be left below habitation, agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per policy/rules.  (xv) 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 measures shall be taken to avoid loss of life and material. Cracks shall be effectively plugged with ballast and clayey soil/suitable material.		· · · · · · · · · · · · · · · · · · ·	
(xii) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and silitation shall be based on the rainfall data.  (xiii) During underground mining, while extracting panels in the lower seam, all water bodies in the subsidence area shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the lower seam is worked to prevent accumulation of large water bodies over working area. At the time of depillaring, protective bunds and garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.  (xiii) Sufficient coal pillars shall be left unextracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.  (xiv) Solid barriers shall be left below habitation, agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per policy/rules.  (xv) 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.	(x)	and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt	Not Applicable
the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.  (xii) During underground mining, while extracting panels in the lower seam, all water bodies in the subsidence area shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the lower seam is worked to prevent accumulation of large water bodies over working area. At the time of depillaring, protective bunds and garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.  (xiii) Sufficient coal pillars shall be left unextracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.  (xiv) Solid barriers shall be left below habitation, agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquirred and compensation provided as per policy/rules.  (xv) 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.	(vi)		
panels in the lower seam, all water bodies in the subsidence area shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the lower seam is worked to prevent accumulation of large water bodies over working area. At the time of depillaring, protective bunds and garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.  (xiii) Sufficient coal pillars shall be left unextracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.  (xiv) Solid barriers shall be left below habitation, agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per policy/rules.  (xv) 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.  (xvi) Crushers at the CHP shall be operated with		the dumps and OB benches within the mine to check run-off and siltation shall be based	Not Applicable
garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.  (xiii) Sufficient coal pillars shall be left unextracted around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.  (xiv) Solid barriers shall be left below habitation, agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per policy/rules.  (xv) 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.  (xvi) Crushers at the CHP shall be operated with Crushers at the CHP, haulage roads, transfer	(xii)	panels in the lower seam, all water bodies in the subsidence area shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the lower seam is worked to prevent accumulation of large water bodies over working area. At the	Not Applicable
around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.  (xiv) Solid barriers shall be left below habitation, agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per policy/rules.  (xv) 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.  (xvi) Crushers at the CHP shall be operated with Crushers at the CHP, haulage roads, transfer	<u>-</u>	garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.	
agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per policy/rules.  (xv) 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.  (xvi) Crushers at the CHP shall be operated with Crushers at the CHP, haulage roads, transfer		around the airshaft (within the subsidence influence area) to protect from any damage from subsidence, if any.	Not Applicable
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.  (xvi) Crushers at the CHP shall be operated with Crushers at the CHP, haulage roads, transfer	(xiv)	agriculture land, roads falling within the blocks to avoid subsidence. No depillaring operation shall be carried out below the roads and habitation area found within the lease. In case of subsidence, the land shall be acquired and compensation provided as per	Not Applicable
(xvi) Crushers at the CHP shall be operated with Crushers at the CHP, haulage roads, transfer	(xv)	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	Not Applicable
	(xvi)		Crushers at the CHP haulage roads transfor
Time to the series and interestable spillibility in property and make the property and the series being the property and the		high efficiency bag filters/water sprinkling	points has been provided with water sprinkling

	system shall be provided to check fugitive emissions from crushing operations, conveyor system which shall be closed, haulage roads, transfer points, etc.	check fugitive emissions. Two number of Dev
(xvii)	Drills shall be wet operated only.	Not Applicable
(xviii)	Controlled blasting shall be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and	Not Applicable
	boulders shall be implemented.	
(xix)	Coal (18,000 TPD) shall be transported from the mine by 7-km long piped conveyors only to the linked power plant located at the distance of 9 km.	
(xx)	The Washery unit shall be a zero-discharge facility and no wastewater shall be discharged from the washery into the drains/natural watercourses. No groundwater shall be used for washery operations.	zero-discharge concept. Effluent generated
	Recycled water shall be used for development and maintenance of green belt and in the plant operations.	operations. Hence zero discharge condition is being maintained all the time.
(xxi)	The raw coal, washed coal and middling and coal wastes (rejects) shall be stacked properly at earmarked site(s) within sheds/stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored minerals do not catch fire.	Noted.
(xxii)	The proponent shall maintain proper records of the ash content of raw (ROM) coal, clean coal, middling and coal rejects along with quantum of raw coal obtained and washed and dispatched every month and the same shall be uploaded on the company website every month.	Noted.
(xxiii)	The entire quantity of clean coal shall be transported by conveyor only to the linked TPP located at a distance of 9km from the mine.	Noted.
(xxiv)	All internal roads shall be concreted or black topped and the approach roads used for the project shall be blacked topped. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.	Not Applicable
(xxv)	The roads (internal/approach/and roads used for the project) shall be regularly cleaned with mechanical sweepers and with water sprinklers. A 3-tier avenue plantation shall be	The Washery and CHP roads (internal/approach/and roads used for the project) are being regularly cleaned and with water sprinklers. A 3-tier avenue plantation

	developed along the major approach roads, internal roads and nearby roads used by the company.	development along the major approach roads, internal roads and nearby roads is in progress.
(xxvi)	Green belt shall be developed along the areas such as the washery unit, crushing unit, and stockyards and at transfer points.	Green belt development along the areas such as the washery unit, crushing unit and at transfer points is in progress. Approx. saplings have been planted so far.
(xxvii)	Hoppers of the coal crushing unit at the crushing shed and washery unit shall be fitted with high efficiency bag filters/Dust extractors and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of belt conveyor systems which shall be closed and from transportation roads.	Existing water sprinkling system installed at hoppers, crushers, transfer points of belt conveyor systems and transportation roads is of sufficient capacity to check fugitive emissions. 2 nos. of Bag Filters i.e. one bag filter at secondary crusher house and one bag filter at screen house, at CHP have been installed.
(xxviii)	The proponent shall ensure that coal rejects of 1.76 MTPA such as stones, shale and other wastes of an ash content of 77% or more only shall be dumped into the mine voids. Coal rejects with an ash content of 76% or less shall be fully utilized in TPP for power generation.	Rejects generated from the Coal washery is stacked in marked place.
(xxix)	An estimated 3.905 Mm³ (5.07 MTPA) of fly ash from the power plant to be accommodated in the mine, shall be dumped in the mine void in alternate layers of fly ash and OB in the ratio of 25%:75% as per DGMS approval, after the initial row of OB of not less than 15m thickness to prevent dump failures.	Not Applicable
(xxx)	Continuous monitoring of long-term impacts of dumping of flyash (for life of the mine) and leaching of heavy metals on soil and water quality of the study area shall be undertaken and the details of which shall be submitted to the Central Ground Water Board, SPCB and to the Regional Office of this Ministry at Bhopal as part of the compliance report. Permanent monitoring arrangements such as peizometers shall be established in and around the mine area covering the potential impact zone for contamination of heavy metals due to leachates from the flyash and in case of increasing levels of heavy metals detected in the groundwater, further dumping of flyash shall be stopped immediately. Independent Third-Party monitoring of the impacts of dumping of flyash shall also be undertaken and reported to the regulatory authorities and uploaded on the company website.	Not Applicable

	In case disposal of flyash into the decoaled voids is not found to be an environmentally suitable option, the balance void shall be backfilled with only OR are revoid shall be	
	backfilled with only OB or converted into a water reservoir of a max. depth of 35m and	
	shall be gently sloped and the upper benches	
	of the reservoir shall be stabilised with plantation and the periphery of the reservoir	
	tenced.	
(xxxi)	Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of	
	new peizometers. The monitoring for quantity shall be done four times a year in pre-	
	monsoon (May), monsoon (August), post-	
i	monsoon (November) and winter (January)	
	seasons and for quality in May. Data thus collected shall be submitted to the Ministry of	
	Environment & Forests and to the Central	
	Pollution Control Board quarterly within one	
(xxxii)	month of monitoring.  As the entire mine water is proposed to be	N. A. W. A.
(15.1.1.)	used for the mine-cum-washery operations,	Not Applicable
	measures shall be taken for recharging	
	ground water in and around the mine in the	
	study area and for agricultural use. A Plan for water conservation and recharge measures	
	of ground water along with budgetary	
i	provisions be prepared and implemented in	,
	consultation with the Central/State Ground	
	Water Board to mitigate the adverse impact	
	of mining which may lead to depletion of ground water in the area.	
	The Company shall put up artificial	
	groundwater recharge measures for	
	augmentation of groundwater resource in	
	case monitoring of groundwater levels indicate decline of water table. Any additional	
	water requirement for mining operation shall	
	be met from rainwater use only. The project	
	authorities shall meet water requirement of	
i	nearby village(s) in case the village wells go	
	dry due to dewatering of mine. It shall be ensured that if the river/nala discharge of	
	mine water takes place, it shall be treated to	
	conform to prescribed standards before	
(xxxiii)	discharge.	
(77711)	ETP shall also be provided for treatment of effluents from workshop, CHP and an STP	STP is provided at colony and the treated
	shall be provided in the colony and the	efficient is being used for green belt/plantation
	treated effluents shall be used for green belt	development, gardening purpose etc. Runoff is de-silted through a series of check dams and
	development. Outflow of rainfall, if any, from	drains to meet prescribed norms.

1	the mine shall meet prescribed norms and the	
	water quality of such discharge shall be	
i	monitored at the exit points and records	
	maintained thereof and also uploaded on the	
	company website.	
(xxxiv)	An afforestation plan covering an area no	Not Applicable
	less than 938 ha shall be implemented, which	1 Not Applicable
	includes backfilled area (833 ha) and are	
	originally covered by ext. OB dump (48.20	
	ha), along ML boundary, green belt,	
	embankment (30 ha), along roads and	
İ	infrastructure, undisturbed/vacant land by	
	planting native species such as Sal, Tendu,	
	Mahua, etc in consultation with the local	
	DFO/Agriculture Department/institution with	
	the relevant discipline. The density of the	
	trees shall be around 2500 plants per ha.	
(xxxv)	Backfilling shall start by the 3 <sup>rd</sup> year of	
(200,1)	operations and completed by 34 <sup>th</sup> year with	Not Applicable
	cessation of opencest operations Of the Little	
i	cessation of opencast operations. Of the total	
	excavated area of 866.25 ha, about 833 ha	
	The section of and registried will	
	plantation/afforestation by planting native	
,	plant species in consultation with the local	
	DFO/Agriculture Department. The density of	
	the tress shall be around 2500 plants per ha.	
	The balance 30m of void shall be left as a	
	water body and the upper benches of the	
	water body shall be gently sloped and	
(xxxvi)	stabilized and reclaimed with plantation.	
(AAAVI)	A programme for conservation of the wildlife	Not Applicable
	particularly for the Indian Elephant reported in	
	the study area and for other rare and	
	endangered species/Schedule-I fauna and	
	endangered flora and species of medicinal	
	importance found in the study area shall be	
	formulated and implemented in consultation	
	with the Forest and Wildlife Departments in	
	the State Government. Separate funds shall	
	be earmarked for implementation of the	
	various activities there under and the status	
	thereof shall be regularly reported to this	
	Ministry and the MoEF Regional Office,	
	Bhopai and also uploaded on the company	·
	website. The project authorities shall i	
	participate in a Regional Action Plan of the	
	State Government for conservation of flora	
	and fauna found within the study area.	
(xxxvii)	Besides carrying out regular periodic health	Phase wise periodical medical examination is
	check up of their workers, 10% of the workers	being undertaken as per rules for persons
	identified from workforce engaged in active	working in Coal Washery. In addition to this all
	mining operations shall be subjected to	precautionary measures are being taken care
		y and all boing taken care

	legath about	
	health check up for occupational diseases and hearing impairment, if any, through a recognised agency found in the district, and	Regular Training Programs related to occupational health & safety is being
	the results reported to this Ministry and to DGMS.	organised.
(xxxviii	For monitoring land use pattern and for post mining land use, a time series of landuse 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	
(xxxix)	MOEF and its Regional office at Bhopal.  Cost for environmental protection measures	The
	shall be not less than Rs 1451.97 lakhs (capital) including Rs 837.81 lakhs for the washery and the annual recurring costs shall not be less than Rs. 442.09 lakhs.	The expenditure related for environmental protection for Coal Washery is being regularly carried out.
(xxxx)	The activities under CSR shall continue for life of the mine (41 years) and a provision of Rs 5/T of coal or Rs 2.6 crores (whichever is higher) adjusted according to value of the rupee, shall be undertaken for the villages in the study area until end of mine life. Details of village-wise activities under CSR along with the activities and budgetary provision shall be uploaded on the company website and the status of its implementation along with expenditure thereon and also desired that a Third party audit of implementation of CSR shall be done periodically.	Not Applicable
(xxxxi)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests five year before mine closure for approval. Habitat Restoration Plan of the mine area shall be carried out using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the lease for reintroduction in the mine during mine reclamation and at the post mining stage for habitat restoration.	Not Applicable
(xxxxii)	Corporate Environment Responsibility:  a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.	Complied.
	b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the	Complied.

	environmental or forest norms/conditions.	
	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.	Complied.
CN	d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.	Complied.
S.No	Conditions	Compliance Status
	ral Conditions	
(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	Not Applicable
(ii)	No change in the calendar plan including excavation, quantum of mineral coal and waste shall be made.	Not Applicable
(iii)	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> and NO <sub>x</sub> . 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, in PM10 and PM2.5 etc. shall be carried out at least once in a year.	Environmental monitoring for ground level concentration of SO2, NOX, PM10 and PM2.5 is carried out at predefined sampling points including predominant downwind direction at regular interval and record maintained with respect to Coal Washery
	Random verification of samples through analysis from independent laboratories recognised under the EP Rules, 1986 shall be furnished as part of the compliance report	Environmental monitoring for ground level concentration of SO2, NOX, PM10 and PM2.5 is carried out at predefined sampling points including predominant downwind direction at regular interval and record maintained with respect to Coal Washery & its results are regularly submitted to State pollution control Board.
 (V)	FIRMING COOK CONTRACT / DRIVE -	Not Applicable

[	provided and properly maintained.	
(vi)	Adequate measures shall be taken for control	Not Applicable
(**)	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.	
(vii)	Industrial wastewater (workshop and	Not Applicable
' '	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.	
(viii)	Vehicular emissions shall be kept under	Not Applicable
	control and regularly monitored.	
(ix)	Environmental laboratory shall be established	An environmental laboratory has been
	with adequate number and type of pollution	established with adequate number and type
	monitoring and analysis equipment in	(for air, noise, water etc.) of pollution
	consultation with the State Pollution Control	monitoring and analysis equipment. The
	Board.	monitoring data generated from lab are being
		submitted to the Chhattisgarh Environment
(14)	Developed working in ducty group shall week	Conservation Board regularly.
(x)	Personnel working in dusty areas shall wear	Complied with.
	protective respiratory devices and they shall also be provided with adequate training and	
	information on safety and health aspects.	
	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.	
(xi)		An Environment Management Cell is already
(, -, )	with suitable qualified personnel shall be set	established to carry out function relating to
	up under the control of a Senior Executive,	environmental management. The department is
	who will report directly to the Head of the	headed by senior Executive who report directly
	company.	to the head of the company.
(xii)	The funds earmarked for environmental	Noted for compliance
	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 Bhopal.	
(xiii)	The Regional Office of this Ministry located at	Noted.
	Bhopal 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	
/s.t. A	data/ information/monitoring reports.	Niet Amelianti
(xiv)	A copy of the will be marked to concerned	Not Applicable
	Panchayat/ local NGO, if any, from whom any	

	suggestion/representation has been received	
	while processing the proposal.	
(xv)	State Pollution Control Board shall display a	Not Applicable to JPL
	copy of the clearance letter at the Regional	
	Office, District Industry Centre and Collector's	
	Office/Tehsildar's Office for 30 days.	
(xvi)	The Project authorities shall advertise at least	Not Applicable
	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. The compliance status	
	shall also be uploaded by the project	
	authorities in their website and regularly	
	updated at least once in six months so as to	
	bring the same in the public domain. The data	
!	shall also be displayed at the entrance of the	·
	project premises and mines office and in	
3.	corporate office.	
٥,	The Ministry or any other competent authority	Noted.
	may stipulate any further condition for	
	environmental protection.	
4.	Failure to comply with any of the conditions	Noted.
	mentioned above may result in withdrawal of	
	this clearance and attract the provisions of	
	the Environment (Protection) Act, 1986.	
5.	The above conditions will be enforced inter-	Noted.
	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.	
	Table 5.000000 dad to the mining operations.	