

Date: 06.11.2015

To.

The Officer in Charge

Ministry of Environment and Forest and Climate Change,

Regional Office (ECZ)

Bungalow No. A-2, Shyamali Colony,

Ranchi- 834 002

Sub:

Submission of Half Yearly Environmental Clearance Compliance report for Jitpur Open Cast Coal Project (2.5 MTPA) located in Villages Jitpur, Dahubera, Dumberpalem, Pakeri, Telbhitta, Kairajori & Jajore, Tehsil Sunderpahari, District Godda, Jharkhand of M/s. Adani

Power Ltd.

Ref:

Environmental Clearance issued vide letter no. J-11015/148/2008-IA.II (M) dated 18<sup>th</sup> May, 2009 & EC Transfer letter to APL on dated 6<sup>th</sup> July 2015

Dear Sir,

With reference to the above cited subject & reference, please find enclosed herewith the Half Yearly Environmental Clearance Compliance report for the period of May 2015 to September 2015 in hard and soft (by e-mail/CD) copies. This is for your kind perusal & record please.

Hope you will find the same in order. Thanking You.

Yours Faithfully,

For Adani Power Limited.

(Dr Rajiv Kumar)

(Authorized Signatory)

Encl: CD

CC: The Member Secretary,

Jharkhand State Pollution Control Board,

TA Division Building (Ground Floor), HEC, Dhurwa,
Ranchi-834 004

Adani Power Ltd 3<sup>rd</sup> Floor, Lake View (In front of Canara Bank) Doranda, Ranchi -834002 (Jharkhand)

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Adani Power Limited	Environmental Clearance	Update as on : 30/09/2015
	Compliance of Jitpur Open Cast Coal Project (2.5 MTPA)	EC No :J/11015/148/2008-IA(IIM)
		EC Date:18/05/2009
		EC Transfer date: 06/07/2015

## "Six Monthly Progress Report for the period ending September 2015"

Half Yearly Compliance Status report of stipulated conditions under EC for Jitpur Open Cast Coal Project (2.5 MTPA):

A. Specific Conditions

Sl. No.	Conditions	Compliance status
(i)	Mining shall not be carried out in forestland until forestry clearance is obtained.	Shall be complied with.
(ii)	The plan for diversion and realignment of the nala and modification of the natural surface drainage and design of the diversion canal shall be done in consultation and approval of the concerned State Flood and irrigation Department. Dimension and depth of the nala should be finalized based on the peak flow of the water.	Shall be complied with. The proposal has been prepared by WAPCOS & submitted for approval from WRD.
(iii)	Top soil shall be stacked properly with proper slope at earmarked site(s) and shall not be kept active and shall be used for reclamation and development of green belt.	Shall be complied. Reclamation of top soil shall be carried as suggested.
(iv)	OB shall be stacked at earmarked external OB dumpsite within ML area and shall be a maximum height of 40m only each. The ultimate slope of the dump shall not exceed 28° A minimum 100m distance shall be maintained between the OB dump and Kewari Nala and between the dump and Jitpur village. Monitoring and management of existing reclaimed dump sites 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 Bhubaneshwar on yearly basis.	Mining will be carried out as per the approved Mining Plan & suggested action will be taken during operation of mine.
(v)	Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, green belt development, etc. The	Shall be complied with



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	Coal Project (2.5 MTPA)	EC Date:18/05/2009
		EC Transfer date: 06/07/2015

Sl. No.	Conditions	Compliance status
	drains shall be regularly desilted and maintained properly.  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.	
(vi)	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.	Based on historical rain fall monitoring data action shall be taken. Mining will be carried out as per the approved Mining Plan.
(vii)	Crushers at the CHP shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.	Shall be complied with.
(viii)	Drills shall be wet operated.	Shall be complied with.
(ix)	Controlled blasting shall be practiced only during daytime with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.	Shall be complied with.
(x)	Mineral transportation to linked TPP shall be by conveyors only.	Shall be complied with.
(xi)	Area brought under afforestation shall not be less than 326.58 ha which includes reclaimed external OB dump (100 ha), backfilled area (153.47 ha), along ML boundary, along roads, green belt, in undisturbed areas and in colony by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.	Shall be complied with.
(xii)	A Progressive Mine Closure Plan shall be implemented for reclamation of quarry area of which 153.47 ha shall be backfilled	Shall be complied with.



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Sl. No.	Conditions	Compliance status
	and afforested by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. The balance 141.34 ha of decoaled area being converted into a water reservoir shall gently sloped along the upper benches and stabilized and reclaimed with plantation.	
(xiii)	A Conservation Plan for endangered species found in and around the project area shall be formulated and for the medicinal plants (in-situ and ex-situ) shall be prepared and implemented in consultation with the State Forest and Wildlife Departments. 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, Bhubaneshwar.	Shall be complied with.
(xiv)	No groundwater shall be used for mining operations. Additional water required, if any, shall be met by recycling/reuse of the water from the existing activities and from rainwater harvesting measures.	Shall be complied with.
(xv)	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-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 month of monitoring.	Shall be complied with.  Monitoring of ground water level and quality shall be carried out through existing wells and through new peizo meters proposed to be constructed during operation phase.
(xvi)	The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring indicated decline in water table. The project authorities shall meet	Shall be complied with.  The project authorities will supply water to nearby village(s) as and when required.



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Sl. No.	Conditions	Compliance status
	water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.	,
(xvii)	ETP shall also be provided for workshop, and CHP. Effluents shall be treated to conform to prescribed standards, particularly for pH and TSS in case of discharge into any water course outside the lease.	Shall be complied with.
(xviii)	An STP shall be provided for the township/colony to treat the domestic effluents to prescribed standards and for their reuse in project activities.	Shall be complied with.
(xix)	R&R shall be based on norms laid down/approval by the State Government and shall not be inferior to that in the National R&R Policy and shall be completed within a specified time-frame. R&R shall provide for a minimum outlay of Rs. 10 crores and Rs 2 crores as revenue expenditure and shall include specific income generation schemes.	Shall be complied with.
(xx)	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: 50000) 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 Bhubaneshwar.	Shall be complied with.
(xxi)	A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests for approval 5 years in advance of final mine closure for approval.	Shall be complied with.

## B. General Conditions

Sl.	Conditions	Compliance status
No.		



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Sl. No.	Conditions	Compliance status
(i)	No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.	
(ii)	No change in the calendar plan including excavation, quantum of mineral coal and waste shall be made.	Shall be complied with.
(iii)	Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RPM, SO <sub>2</sub> , NOx and heavy metals such as Hg, Pb, Cr, As, etc. 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.	Shall be complied with.
(iv)	Fugitive dust emissions (SPM and RSPM and heavy metals such as Hg, Pb, Cr., As, etc) from all the sources shall be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points shall be provided and properly maintained.	Shall be complied with.
(v)	Data on ambient air quality (SPM, RSPM, SO <sub>2</sub> , NOx and heavy metals such as Hg, Pb, Cr, As, etc)) shall be regularly submitted to the Ministry including its Regional Office at Bhubaneshwar and to the State Pollution Control Board and the Central Pollution Control Board once in six months.	Shall be complied with.
(vi)	Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.	Shall be complied with.
(vii)	with ear plugs/muffs.	Shall be complied with.



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Sl. No.	Conditions	Compliance status
	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.	
(viii)	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.	Shall be complied with.
(ix)	Environmental laboratory shall be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.	Shall be complied with.
(x)	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.	Shall be complied with.
	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)	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.	An Environmental Engineer has been appointed who is reporting to Head of the company.
(xii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhubaneshwar.  The Regional Office of this Ministry located	Shall be complied with.  Shall be Complied with New



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Sl. No.	Conditions	Compliance status
	at Bhubaneshwar 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.	Regional Office of this Ministry located at Ranchi.
(xiv)	A copy of this will be marked to concerned Panchayat/ local NGO, if any, from whom any suggestion/ representation has been received while processing the proposal.	Informed to Panchayat.
(xv)	State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/ Tehsildar's Office for 30 days.	SPCB had displayed.
(xvi)	The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the ministry of Environment & Forests at <a href="http://envfor.nic.in.">http://envfor.nic.in.</a> . 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 corporate office.	Advertised in two local newspapers.  Display of compliance status at the entrance of Project site, etc. Will be done as & when the Project work commences.

