JINDAL INDIA THERMAL POWER LIMITED

VILL/P.O : DERANG, TEH. : KANIHA, DIST. : ANGUL, ODISHA, PIN-759117
Phone : +91 9583040700/701/702/703

Ref: JITPL/EHS/MOEF/06

Date: 20.12.2016

To
The Joint Director,
Ministry of Environment, Forest & Climate Change,
Eastern Region,
Government of India,
A/3, Chandrasekharpur,
BHUBANESWAR - 751023

Sub: Half yearly compliance reports

Ref: MOEF New Delhi Environmental Clearance No: 13011/40/2008-IA.II (T) dated 29th September, 2008.

Dear Sir,

Please find enclosed herewith the Six monthly compliance reports for the period April,2016 to September,2016 with respect to our Jindal India Thermal Power Ltd. along with the Monitoring Report, Part-I, Particulars of Greenbelt/ plantation under F(C) Act 1980 and E(P) Act 1986 and Information on Rehabilitation in the prescribed Format for your kind perusal.

Thanking you,

Yours faithfully,
For Jindal India Thermal Power Ltd.

(Vikas Chandra Shukla)
Plant Head

Encl: As above.

HALF YEARLY COMPLIANCE REPORT

Period: April,2016 to September,16

JINDAL INDIA THERMAL POWER LTD.

Ref: MOEF New Delhi Environmental Clearance No: 13011/40/2008-IA.II (T) dated 29th September, 2008

Sl.No.	POINTS	COMPLIANCE STATUS
i.	The land requirement for the ash pond, township and water reservoir shall be reduced so as to ensure that the total land requirement for the project does not exceed 950 acres. Distance from HFL of Tikra River shall be maintained at least 500m as per siting guidelines.	We have restricted to construct our project within 950 acres of land. The plant boundary is in excess of 500m distance from the HFL of Tikira river.
ii.	Sulphur and ash contents in the coal to be used in the project shall not exceed 0.5% and 40% respectively at any given time.	We have Coal Linkage from MCL Coal fields & Coal Block in Talcher Area. Coal in this area has Sulphur content < 0.5% & Ash < 40%.
iii.	A bi-flue stack of 275 m height shall be provided with continuous online monitoring equipment for SO2, NOx and Particulate. Exit velocity of flue gases shall not be less than 22 m/sec.	A bi-flue stack of 275mtr height with provision of continuous online monitoring equipment for SO2, NOx and particulate matter is provided. Exit velocity of flue gas is more than 22m/ sec.
iv.	High efficiency Electrostatic Precipitator (ESPs) shall be installed to ensure that particulate emission does not exceed 50mg/Nm3.	ESP with high efficiency is installed to ensure Particulate Matter (PM) <50mg/NM3. ESP performance guarantee of supplier is attached as **Annexure-01**.
v.	Space provision shall be kept for retrofitting of FGD, if required at a later date.	Space for FGD (Flue Gas Desulphurization) is already provided.
vi.	Adequate dust extraction system such as cyclones/bag filters and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Bag filters are installed in all ash handling points, transfer points and vulnerable dust generating points.
vii.	Fly ash shall be collected in dry	Fly ash is collected in dry form and is being

	form and storage facility (Silos) shall be provided. 100% fly ash utilization shall be ensured from 3rd year onwards. Utilization fly ash and bottom ash shall be disposed off in the ash pond in conventional slurry mode. Mercury levels along with other heavy metals (Pb, Cr, As etc.) should be monitored in the fly ash/bottom ash, leachates and effluents emanating from the ash pond.	disposed off to ash users, viz, Fly ash bricks, tiles and blocks manufacturing units in the region. MOU with cement manufacturing industries is being worked out for supply of fly ash. Part of dry ash is disposed off by low lying area filling. Balance fly ash is sent to Ash Pond through High Concentration Slurry Disposal System (HCSD). Fly ash analysis report for Pb, Cr, As and Hg is attached as **Annexure No - 2.** Besides this JITPL is taking action for filling of abandoned mine quarry and for construction of road by fly ash. For this applying for allotment of such type of quarry is in progress.
viii.	The ash pond shall be lined with impervious lining and ash pond embankment towards river should be stone pitched.	Ash pond bottom is lined with HDPE and stone pitching is done in embankment towards Tikira river.
ix.	Closed cycle cooling system with cooling towers shall be provided. COC of at least 6 shall be adopted and the effluents shall be treated as per the prescribed norms.	Closed cycle cooling system with IDCT and COC of 7 is being complied. Effluent treatment plant as per the norms is provided.
x.	The treated effluents conforming to the prescribed standards shall be re- circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.	The treated effluent is stored in a common basin Guard Pond), re-circulated and re-used in plant for ash handling system, coal handling system and greenbelt development to ensure zero discharge. Storm water drain is made to discharge rainwater without mixing with effluent during summer season.
xi.	A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.	Two nos of Sewage treatment plants are constructed and the treated water is used for raising greenbelt / plantation.
xii.	Rain water harvesting should be adopted. Central Ground water Authority/Board shall be consulted for finalization of	In consultation with CGWA, rainwater-harvesting structure is constructed at different locations.

	appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.	
xiii.	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry at Bhubaneswar.	All safety measures are taken care to minimize spontaneous fires in coal yard by provided high pressure fire hydrant line. The details are given in **Annexure – 03.**
xiv.	Storage facilities for axillary liquid fuel such as LDO and/ HFO/LSHS shall be made in the plant area where risk is minimum to the storage facilities. On site and off site Disaster Management Plans shall be prepared to meet any eventually in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modifications required, if any shall be incorporated in the DMP. Sulphur content in the liquid fuel will not exceed 0.5%.	Storage facilities for axillary liquid fuel such as LDO/HFO/LSHS are made. On site Emergency Plan is submitted earlier as **Annexure - 04** . 0.5% Sulphur content in the liquid fuel is ensured.
xv.	Regular monitoring of ground water in and around the ash pond area shall be carried out, records maintained and six monthly reports shall be furnished to the Regional Office of this Ministry.	It is maintained.
xvi.	A green belt of adequate width and density shall be developed around the plant periphery covering an area of at least 310 acres preferably with local species.	Green belt development is being carried out. We have made our own nursery with local varieties species of 100000 seedlings capacity. Till date, we have planted 253147 local varieties of plants with spacing 2M x 2M within the factory premises at its boundary, township, ash pond and labour hutment area. Details of plantation is attached as **Annexure – 05 (A) & 05 (B)**
xvii.	Adequate funds shall be allocated for undertaking CSR activities. Details of activities shall also be submitted to the Regional Office of the Ministry, SPCB and the	An adequate fund is allocated for undertaking CSR activities which include education, health, sports, communication, drinking water supply, electrification, cultural activities etc. Details of activities are attached as **Annexure -06.**

	Ministry.	
xviii.	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	One First Aid Centre is functioning with two qualified doctor and three Pharmacists round the clock at site. First aid boxes with required medicines are also provided at different high risky points. Sanitation facilities at site are provided to the drivers and contract workers.
xix.	Leq of Noise levels emanating from turbines shall be limited to 75 dB (A). For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy/less noisy areas.	Necessary precautions are taken care to control noise level. Ear plugs and ear muffs are supplied to the workers working in high noisy area as a precautionary measures. Periodically audiometric test is performed to the workers working in those areas. The noise level data of different areas are attached as **Annexure- 07.**
xx.	Regular monitoring of ground level concentration of SO2, NOx, SPM,RSPM and mercury shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the Regional Office of this Ministry.	In consultation with SPCB officials we have selected four online ambient air quality monitoring stations at site. The monitoring results are attached as **Annexure – 08.**
xxi.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structure to be removed after the completion of the project.	All arrangements are provided at site by the company.
xxii.	The project proponent shall advertise in at least two local	It was maintained.

	newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in.	
xxiii.	A separate environmental management cell with qualified staff shall be set up for implementation of stipulated environmental safeguards.	Environment Management Cell is formed and headed by one Senior Executive (Environment).The details of EMC is attached as **Annexure No-9.**
xxiv.	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry/ Regional Office/CPCB/SPCB.	It is being complied.
xxv.	Regional Office of the Ministry of Environment & Forests located at Bhubaneswar will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.	Agreed.
xxvi.	Separate funds shall be allocated for implementation of environmental protection measures along with item wise break up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and	Separate funds are allocated for implementation of environmental protection measures. The item wise break up is attached as **Annexure No-10.**

	year-wise expenditure should be reported to the Ministry.	
xxvii.	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.	The land development including phase - I & phase - II construction work is already completed. Unit-I is commissioned on 05.06.2014. & Unit - II is commissioned on 12.02.2015.
xxviii.	Full co-operation shall be extended to the Scientists/Officers from the Ministry / Regional Office of the Ministry at Bhubaneswar/ the CPCB/ the SPCB who would be monitored the compliance of environmental status.	We will extend our full cooperation to the Scientists/Officers.

Ministry of Environment & Forests
Regional Office
BHUBANESWAR
Monitoring Report
PART-I
DATA SHEET

File No.

1. Project type : Large Scale
2. Name of the Project : Jindal India Thermal Power Ltd.
3. Clearance/Approval letter(s) No. & date : 13011/40/2008-IA.II (T) dated 29th September, 2008
4. Locations
   a. District(s) : Angul
   b. State(s) : Orissa
   c. Latitudes/Longitudes : Latitude- 21° 7' 10" - 21° 7' 47" N
      Longitude- 84° 58' 25" - 85° 0' 24" E
5. Address of Correspondence
   a. Address of concerned Head of Organization (with pin code and Telephone/telex/fax numbers) : Sri Prabhat Kumar Budhwar ,
      Director & Occupier,
      Jindal India Thermal Power Ltd.
      Plot No-12, Local Shopping Complex,
      Vasant Kunja, New Delhi,
      Tel - 011-26139256
   b. Address of Head of project(with pin code and Telephone/telex/fax numbers)
      Sri Vikas Chandra Shukla
      (Plant Head)
      Jindal India Thermal Power Ltd.
      At/P.O.: Derang, P.S-Kaniha,
      Dist: Angul, Orissa,
      Pin: 759117
      Tel: 9583040002
6. Salient features

a. Of the project : The land identified for the proposed project is mostly barren uncultivable wasteland and partly rain fed single crop agricultural land, comprising of 25% of Government land and 75% of private land. There are no streams or nallahs in the project site. The land in elevation of about 105m a MSL.

The mean maximum & minimum ambient temperature in the area as per IMD Angul are recorded to be 40.9 degree centigrade (May) and 14.7 degree centigrade (December) respectively. The relative humidity varies from 66% to 80% at 0830hr and from 38% to 79% at 1730hr. The average annual rainfall in the region is about 1450.8mm. Seismically, the site falls under seismic zone-II, which indicates that the area is seismically stable.

b. Of the environmental management plans : Environmental Management Plan forms an integral part of the proposed project activities from design to operational stage to minimize the adverse impacts. The fugitive dust emissions due to coal fines from the stock pile of raw materials and fines dump in the open area is being controlled by dust suppression system of routine water sprinkling. Power plant is being equipped with integral pollution control system. The gases & fly ash leaving chimney is passed through a series of pollution control equipments like ESP. Bag filters is provided for control of fugitive emission in coal transfer point in conveyor belts and in fly ash transfer point at Silo. Noise level in the Core and Buffer Zone is maintained within the statutory norms for the betterment of working personnel. Various steps is proposed at the design stage to recycle and reuse of the process effluent aiming zero discharge. The solid waste is dumped in a planned manner in layers with a layer of soil in between, and after thorough compaction, plantation will be raised over the solid waste dump. The green belt is developed along the boundary, in the vacant areas, around office building etc. of the project site. An Environmental Management Cell is constituted for EMP implementation and monitoring purpose.

7. Break up of the project areas (in ha)

Forest area	:	Nil
Non-forest area	:	950 Acres
Total	:	950 Acres

8. Break up of the project affected population : No village in the project area

	Number of oustees		
	Homestead	Land oustees	Landless/ Artisans
SC, ST/Adivasis Others	Nil		

9. Financial Details

a. Project cost as originally planned and subsequent revised estimates and the years of price reference : Rs.5400 Crores

b. Allocations made for environmental management plans, with item wise & year wise break up : Rs.257 Crores @ Rs.26.1 Crores per year Details are given as Annexure no-06

c. Benefit cost ratio/internal rate of return & the year of assessment :

d. Whether(c) includes the cost of environmental management as shown in (b) above : Yes

e. Actual expenditure incurred on the environmental management plans so far :

Project Expenditure	EMP Expenditure

10. Status of construction

a. Date of commencement (actual and/or planned) : 2010

b. Date of completion (actual and/or planned) : 29.03.2014 (1st Phase)

c. Date of commissioning : 05.06.2014 (1st Phase), 12.02.2015 (2nd Phase)

11. Project process details

Components	Dates of Construction	Completion	Commissioning
1. Engineering and other project components			
2. Environmental Management and Pollution Control components	a. ESP b. Bag Filters c. Permanent Water Sprinkler		

Date: 20/12/16

SIGNATURE:

MINISTRY OF ENVIRONMENT AND FORESTS
EASTERN REGIONAL OFFICE
A/3, CHANDRASEKHARPUR, BHUBANESWAR-751023

FORMAT FOR PROVIDING PARTICULARS ON GREEN BELT/PLANTATION UNDER F(C) ACT 1980 AND E (P) ACT 1986

1.	a)	Name of the Project	:	Jindal India Thermal Power Ltd.
	b)	Envt. / Forest Clearance Nos.	:	13011/40/2008-IA.II (T) dated 29.09.2008
2		Location, Block/Sub.Divn. /Dist/State	:	At/P/O:Derang,Block:Kaniha, Dist: Angul, Orissa
3.		Address for communication	:	Jindal India Thermal Power Ltd. At/P/O:Derang,Block:Kaniha, Dist: Angul, Orissa
4		Existing vegetation in the area/region		
	a)	Species (trees/shrubs/grasses/climbers)	:	**Trees:** Sissoo, Teak, Gumbar, Chhatiana, Mango, Chakunda, Palm,Kadamba, Litchi,Sal, Guajava,Chakunda, Neem etc. **Shrubs**-Arakha, Kurei, Basanga, Ban sorish etc. **Grasses**-Khari, Bena, Dooba, Broom grass, Bamboo, etc. **Climbers:** Atundi,Bichhuati, Baidanka,Siali etc.
	b)	Major prevalent species of each type	:	Palm
5		Land coverage by the project		
	a)	Total area under the project	:	950Acres
	b)	Area covered for basic infrastructure (roads/ building/ factory etc.)	:	1.Factory & Building:....Acres 2.Roads: ....Acres 3.Drains & Pipeline:.....Acres
6		Details about natural vegetation		
	a)	Name and number of tree/ species felled	:	Nil
	b)	Name and number of plant species still available in the area	:	Nil

c) By protecting the area will indigenous stock come up : No

d) Extent of greenbelt developed : No

7 Plantations required to be carried out as per

a) Conditions of Environmental clearance in ha. /Nos. : 2500 nos

b) Conditions for Forest Act (c) clearance in ha. /Nos. :

c) Voluntarily in ha. /nos. :

8 Details of plantation

a) Total area available for plantation in each category : 310Acres

i) Green Belt	ii) Dumps	iii) Back filled area	iv) Road sides	v) Block plantation
25.0 Acres				203.0 Acres

b) Plantation details (category wise & methodology used): Plantation is carried out this year.

Year of plantation	Species planted	Spacing	Height attained	Total area covered	Area still available
2011	Local	2M x 2M	25 ft	25.0 acres	285 acres
2012	Local	2M x 2M	16 ft	35.0 acres	250 acres
2013	Local	2M x 2M	9 ft	77.0 acres	173 acres
2014	Local	2M x 2M	8 ft	47.0 acres	126 acres
2015	Local	2M x 2M	6ft	44.0 acres	82 acres
2016	Local	2M x 2M & 4M x 4M	3ft	35.0 acres	47acres

c) Survival of plantation :

	Up to 2015	For the year 2016
-Total plantations (No.)	- 227266	25881
-Survival (No.)	- 184540	23810
-Survival rate (%)	- 81.2%	92%

9 Agency carrying out plantation and maintenance : JITPL in house team

10 Financial details (year wise) plantation wise and item wise

Sl. No.	Year	Funds allocated	Expenditure made	Average cost of each surviving plant in Rs.

01	2011-12	Rs 886000.00	Rs.1040000.00	Rs.59.09
02	2012-13	Rs 1638250.00	Rs.1583000.00	Rs.56.53
03	2013-14	Rs. 3550076.00	Rs.3348576.00	Rs.54.36
04	2014-15	Rs. 2333750.00	Rs. 2020500.00	Rs.52.42
05	2015-16	Rs. 2816000.00	Rs. 2489738.00	Rs.56.32
06	2016-17	Rs. 2000000.00	Rs. 1607986.00	Rs.62.13

:

11 Inspection of plantation by field experts and their comments and their comments and follow up actions

12 Remarks/ any other information :

Dr. K. K. Pandey 25/10/16

Officer in Charge

******* *** *******

Report-II

PROFORMA FOR PROVIDING INFORMATION ON REHABILITATION

****

1.	No. of villages affected	:	Not applicable as no villages are affected.			
2.	Families affected	:	SC	ST	OTH	TOTAL
3.	Compensation package offered per family	:				

State/Centre norms	Project package

4.	Budget estimate for rehabilitation	:				
	a) Total outlay	:				
	b) Amount paid/used	:				
5.	Employment details	:				
	a) Total employment to be provided	:				
	b) Employment given so far	:				
6.	Rehabilitation & Resettlement details	:				
	a) No. of families rehabilitated	:				
	i) Name of the site					
	ii) Families rehabilitated	:	SC	ST	OTH	TOTAL
	b) Families yet to be rehabilitated	:				
	i) Name of the site(s)	:				
	ii) No. of families	:	SC	ST	OTH	TOTAL
7.	Any other information	:				

DATE: 20/12/16

SIGNATURE:

SPEC.NO. TCE.5404A-C-500-001	JINDAL INDIA THERMAL POWER LIMITED 2 x 600 MW/600 MW + 10% THERMAL POWER PROJECT AT DERANG, ANGUL,ORISSA	VOLUME – II SECTION: F3 SHEET 3 OF 11
Package : BTG CONTRACT	TITLE SCHEDULE OF PERFORMANCE GUARANTEES	TCE

	Particulars	Value Inclusive of design, manufacture and all other tolerances including measurement uncertainty	Applicable Test Codes	Remarks
h)	Dust concentration at ESP outlet with all fields in service at 100% SGMCR for the worst coal firing (Maximum)	50mg/Nm^3	EPA Method 17	
i)	Total dissolved solids in steam leaving steam drum at 100% SGMCR (maximum)	0.02 ppm (Annexure –1)		
j)	Desuperheating spray water quantity for superheat steam temperature control for steam generator at	Will vary from 3% to 6% of BMCR flow		
	100% of SGMCR 80% of SGMCR 60% of SGMCR	____ t/hr ____ t/hr ____ t/hr		
k)	Total dissolved solids in steam leaving final super heater at 100% SGMCR: (maximum)	0.02ppm (Refer Annexure-1)		
l)	Boiler and Turbine as a whole should sustain in house load operation when there is a load throw off for a minimum period of one (1) hour to resynchronize the unit with the grid	Yes/No		
m)	Coal mill performance at maximum mill capacity for fineness of 70 % through 200 mesh.	60 t/h for Design coal.		
n)	Steam Generator Maximum Continuous Rating (SGMCR) under worst coal firing.	2000 t/h		

Bharat Heavy Electricals Ltd. PS-Mktg. Delhi

ISSUE

JINDAL INDIA THERMAL POWER LIMITED NEW DELHI

Annexure No.-02

Ref.: VCSPL/2015/R-785(D) Date: 23.12.15

FLYASH SAMPLE ANALYSIS REPORT

Name of Industry : **M/S Jindal India Thermal Power Ltd, Anugul**
Sampling Location : S1 : Flyash Sample (Silo)
S2 : Flyash Sample (Ash Pond)
S3 : Bottom Ash Sample (SL.No. 1)
S4 : Bottom Ash Sample (SL.No. 2)

Date of sampling : 12.12.2015
Date of analysis : 16.12.2015 to 19.12.2015
Sample collected by : Clients Representative

Sl. No.	Parameters	Testing Methods	Unit	Analysis Result			
				S1	S2	S3	S4
1	Arsenic as As	Digestion of sample followed by analysis in AAS	mg/kg	7.3	9.7	0.64	0.52
2	Lead as Pb		mg/kg	108.5	121.3	38.0	27.0
3	Chromium as Cr^{6+}		mg/kg	ND	ND	ND	ND
4	Mercury as Hg		mg/kg	0.1	0.3	0.4	0.4

Note: ND- Not Detected

VISIONTEK CONSULTANCY SERVICES PVT. LTD.

For Visiontek Consultancy Services Pvt. Ltd.

Annexure - 03

JINDAL INDIA THERMAL POWER LIMITED, DERANG

SAFETY MEASURES IN COAL STOCK YARD.

It is a common phenomenon in coal stock to catch fire automatically by auto ignition without any application of external ignition source. Chance of fire is more in summer season. To prevent such incident of fire and also dust emission we have installed some fixed installation and have been taking following steps continuously.

1. Stock heap/height is restricted to 2 m.
2. We are storing in segregation manner. There is space of 2 m between every two heaps.
3. As per TAC standard we have installed our fire hydrant network (reservoir, pump house, hydrants, monitors, sprinklers, risers, sprayers, etc.) throughout the plant including coal yard.
4. Whole coal yard is covered with fire hydrant lines on both sides. Each side is having three single headed hydrants and three monitors which are charged round the clock. These installations cover the whole area in case of any fire. In case of power failure we have diesel pumps in pump house to meet the exigency.
5. Monitors without any external addition when operated cover the whole area. Firefighting delivery hoses with branches and nozzles are kept in the coal yard which can be operated from hydrants. The yard is manned round the clock who keeps vigil and attend the fire or smoke with this system.
6. Besides hydrant system we have water spraying arrangement in the area. During summer we spray water on the coal heap at regular intervals so that it will not attain the auto ignition temperature.
7. Earthmoving equipment like loaders, JCB and poclain machines are available always which can dig/segregate the pile in case of any fire.
8. We have our Fire Service section with two fire tenders/pumps, crew members, firefighting and rescue equipment which visit the yard regularly and take immediate steps to extinguish the fire if any.

ANNEXURE NO -4

Sl 297

JINDAL INDIA THERMAL POWER LTD

ONSITE EMERGENCY PLAN(OEP)

2X 600 MW Units

Prepared By

Prof. Amiya Kumar Dash

&

Prof. Harish Chandra Das

MECHANICAL ENGINEERING DEPARTMENT

SIKSHA O ANUSANDHAN UNIVERSITY

20.6.14

Director of Factories & Boilers
Odisha, Bhubaneswar

Annexure No-05(A)

Location and Year Wise Plantation Details of JITPL .As on 15.12.2016

Sl.No	Location	Achievement upto 2015	Target for 2016	Achievement of 2016	Total
1	Majhi Sahi Boundary wall side.	7920	1000	1000	8920
2	Outside of RCO Complex Boundary	55	0	0	0
3	Near Reservoir and Labour Colony.	8000	1000	1000	9000
4	Town ship	9000	1500	1500	15000
5	Area near Mohanipal Gate (Now outside plant Premises)	8000	0	0	8000
6	Labour Colony Ash Pond Area	10000	2500	2500	12500
7	Area between CHP and NTPC ash pond gate site	15000	0	0	15000
8	Boundary wall side from old gate to NTPC ash pond gate.	7000	0	0	7000
9	Coal Conveyor side Area (Block Plantation	5339	2500	2500	7839
10	First Aid Station Area (New Gate)	534	750	750	1284
11	In between Ash Pond & NTPC Gate Area (Old Plantation Area)	14600	0	0	14600
12	New Road Side Area from First Aid Center	4340	0	125	4465
13	North side of Ash Pond (Tal Jungle Area)	9405	1000	2000	10405
14	NTPC Ash Pond Gate Area	4390	0	0	4390
15	Rukmani Side near Labour hutment	7030	2000	2000	9030
16	Town ship Area	21230	0	0	21230
17	Mohinipal Gate Area	1580	0	0	1580
18	Avenue Plantation, South side of Road No -9	300	2000	1750	2050
19	Near Sal Jungle Area	4650	0	0	4650
20	Near Security Office (new Gate) Boundary	540	0	0	540
21	Outside of the boundary Wall	275	0	0	275
22	Inside Township boundary wall	460	0	0	460
23	Near Reservoir	4768	2000	2000	6768
24	Back Side of Fuel Oil Tank	16196	2000	1889	18085
25	Back side of Silo	1131	0	350	1481
26	East side of Switch Yard	86	2000	1950	2036
27	Ghantianali & Derang Road	75	0	0	75

28	In front of crosser house	9700	1000	850	10550
29	In front of way bridge	11212	1000	1000	12212
30	Near Ash Pond	4740	1000	600	5340
31	Near Kalinga Barak	3800	0	59	3859
32	Conveyor Belt Side	3540	1750	1332	4872
33	Back side of Petrol pump	800	0	0	800
34	Near Petrol Pump	750	0	0	750
35	Back Side of Simens Yard	5866	0	78	5944
36	CW pump house to FA Centre Road	886	0	150	1036
37	In front of cooling Tower	6453	0	70	6520
38	Near AQMS 1	755	0	78	833
39	Near Contigency hopper	8259	0	350	8609
40	Near D.M Plant	800	0	0	800
41	Near Switch Yard	1230	0	0	1230
42	Near Way bridge	1320	0	0	1320
43	Near Petron Batching Plant Area	3820	0	0	3820
	Total	**2,27,266**	**25000**	**25881**	**253147**

Annexure No-5(B)

Plantation Details

Jindal India Thermal Power Limited

Period : From 2011 to 2016

(Within Plant Premises)

Sl.No	Name of Species Planted	Achievement Upto 2015	Target of 2016	Achievement of 2016	Total
1	Sissoo	36298	5000	4950	41248
2	Sal	1020	0	0	1020
3	Amla	5360	0	0	5360
4	Chakunda	53192	5000	4950	58142
5	Neem	5123	0	0	5123
6	Sirish	28131	7000	6001	34132
7	Arjun	17350	0	0	17350
8	Kanchan	3495	0	0	3495
9	Chhatiana	10444	1000	800	11244
10	Kadamba	2311	2500	1980	4291
11	Acacia auriculiformis	8815	1500	1900	10715
12	Acacia Mangium	11024	0	0	11024
13	Cashew	2030	0	0	2030
14	Karanja	1930	0	0	1930
15	Krishnachuda	3175	1500	2500	5675
16	Radhachuda	15484	1500	2800	18284
17	Simili	3480	0	0	3480
18	Bamboo	1753	0	0	1753
19	Jamun	600	0	0	600
20	Guava	34	0	0	34
21	Mango	329	0	0	329
22	Teak	534	0	0	534
23	Lemon	30	0	0	30
24	Sapeta	94	0	0	94
25	Subabul	1250	0	0	1250
26	Badachakunda	9015	0	0	9015
27	Pateli	154	0	0	154
28	Putranjiba	3011	0	0	3011
29	Simaruba	1200	0	0	1200
30	Tamarind	32	0	0	32
31	Jack fruit	18	0	0	18
32	Spathodia	550	0	0	550
	Total	**227266**	**25000**	**25881**	**253147**

JINDAL INDIA THERMAL POWER LTD., VIL. DERANG, DIST. ANGUL, ODISHA

CSR & PERIPHERIAL DEVELOPMENT ACTIVITIES UP TO 31.10.2016

Sl. No.	Sector	Details of Activity	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	Total Cost Incurred (Rs.)	No. of Persons/Families/ Villagers benifited (Approx.)
1	Road & Infrastructure	Construction of Road from Derang to Kendupasi (jaghan Raod)	76,00,000							76,00,000	5000 Villagers
		Strengthening & Widening of PWD Road from Derang Hatapada to Kaniha		1,50,00,000	5,00,00,000	8,73,23,000				15,23,23,000	10000 Villagers
		Strengthening & Widening of RD Road from Derang Hatapada to Ghantianali			71,71,700					71,71,700	5000 Villagers
		Construction of Drain at Telisahi , Derang		2,70,200						2,70,200	300 Villagers
		Construction of Road & Culvert in Changudia Village	29,39,000							29,39,000	5000 Villagers
		Repairing of Road from JITPL Main Gate to Derang Village		1,75,000						1,75,000	3000 Villagers
		Construction of Culvert at Derang Hatapada on RD Road		4,00,000						4,00,000	5000 Villagers
		Repairing of Hamlet road at Ghantianali, Derang		2,94,000						2,94,000	1200 Villagers
		Spreading Murrom on pot holes on road from Tareni Mandir to Mashunihata village		65,601						65,601	
		Road Repairing NTPC through Ash Dyke road		49,068						49,068	
		Repairing Hamlet road at Mohanty Sahi, Derang Village		27,000						27,000	
		Repairing village road at Teli Sahi, Derang		2,26,800						2,26,800	300 Villagers
		Fair Weather Road in Tikira River for Bole Villagers		49,493	70,000	70,000	99,750			2,89,243	800 Villagers
		Repairing of Road from Ghantianali To Mohinpal				1,21,400				1,21,400	
		Construction of Half-Finished Laxmi Puja Mandap, Majhi Sahi				75,000				75,000	
		Repairing & construction of Hamlet Road, Dehury Sahi				3,00,000				3,00,000	
		Repairing & renovation of Derang Panchayat Office				1,30,000				1,30,000	
		Supplying Civil Materials for construction of Tareni Mandir, Ghantianali				21,350				21,350	
		Construction of Half-Finished Kali Mandir, Ghantianali				2,00,000				2,00,000	
		Repairing of Raod from Kaniha to Madua Chhak				2,60,000				2,60,000	
		Strengthening & Widening of NH from Kaniha Gandhi Square to Takua Village					5,30,11,084			5,30,11,084	
		Construction of Boundary wall for Volley Ball Playground at Takua village							7,22,159	7,22,159	
		Total	**1,05,39,000**	**1,65,57,162**	**5,72,41,700**	**8,85,00,750**	**5,31,10,834**	0	7,22,159	22,66,71,605	
		Dug well at Dehuri Sahi, Derang	49,900							49,900	25 Families
		40 Nos. of hand pump installed in village Derang, Ghantinali & Mohinpal	2,51,235	10,60,096	9,01,424	5,02,055				27,14,810	500 Families
		Water Supply through Pipe Line for Dehuri Sahi & Mohanty sahi, Derang		2,31,232						2,31,232	200 Families

Annexure No-6

Sl. No.	Sector	Details of Activity	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	Total Cost Incurred (Rs.)	No. of Persons/Families/ Villagers benifited (Approx.)
2	Safe Drinking Water	Water Supply through Pipe Line to Ashram High School, Bhaneswari High School & Hatapada UP School, Derang		1,14,000						1,14,000	700 Students
		Construction of Pipe Line from Derang Hatapad to Sriram Mandir for providing safe drinking water				2,25,000				2,25,000	100 Families
		Repair & Maintenace of Borewell installed by JITPL					28,510	49,990	19,500	98,000	
		Providing Safe Drinking Water through Water Tanker to the Families of Kaniha, Pathrarmunda, Takua.						9,60,000	5,60,000	15,20,000	100 Families
		Total	**3,01,135**	**14,05,328**	**9,01,424**	**7,27,055**	**28,510**	**10,09,990**	**5,79,500**	**49,52,942**	
3	Sanitation	Renovation & Excavation of Pond at Maji Sahi, Derang Village	2,00,000							2,00,000	1200 villagers'
		Renovation & Beautification of Happy Pond at Angul Municipality				1,55,282				1,55,282	
		Excavation of Pond at Dehury Sahi, Derang Village					1,95,506			1,95,506	800 villagers'
		Total	**2,00,000**	**0**	**0**	**1,55,282**	**1,95,506**	**0**	**0**	**5,50,788**	
4	Electrifica-tion	Repairing of Village Transformer at Derang	50,000							50,000	100 Families
		Repairing & Renovation of AB conductor wire in Derang Village & Cable Conductor		93,360						93,360	100 Families
		Supply of Service Wire for electric supply to Tareni mandir & Lighting at Medical Square		35,293						35,293	100 Families
		Supply of Service Wire for electric supply to Kali mandir at Jahria Sahi		10,000						10,000	
		5 nos. of Street Light at Lord Shiv Mandir at Kakudia village			1,00,000					1,00,000	
		Up gradation of Transformer from 100 KVA to 250 KVA at Majhi Sahi		3,73,007						3,73,007	200 Families
		Up gradation of Transformer from 63 KVA to 100 KVA at Mohanty Sahi		1,20,000						1,20,000	100 Families
		Installation of 63 KVA Transformer at Dehury Sahi (Sahar Sahi)			2,02,819					2,02,819	100 Families
		Installation of 63 KVA Transformer at Medical Sqr, Derang			3,50,000					3,50,000	75 Families
		Provide 40 Nos. Street Light in Derang Village (Dehury Sahi & Mohanty Sahi)			8,74,400					8,74,400	2000 villagers'
		Repairing of Village Transformer at Behera Sahi, Derang			25,000					25,000	
		Repairing of Village Transformer(100KVA) installed at Derang Hatapada				36,774				36,774	
		Electrification of Derang Panchayat Office				38,000				38,000	
		Installation of 63 KVA Transformer at Gadanayak Sahi, Derang				3,46,297				3,46,297	
		Provide 6 Nos. Street Light n Volley Ball Ground in Derang Village for empowering local sports near medical Square					90,000			90,000	
		Provide 4 Nos. Street Light in Volley Ball Ground in Takua Village for empowering local sports					60,000			60,000	
		Total	**50,000**	**6,31,660**	**15,52,219**	**4,21,071**	**1,50,000**	**0**	**0**	**28,04,950**	
		Medical Instruments for First Aid Centre for PAF's	2,10,000							2,10,000	5000 villagers`

Sl. No.	Sector	Details of Activity	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	Total Cost Incurred (Rs.)	No. of Persons/Families/ Villagers benifited (Approx.)
5	Health	Ambulance for First Aid Centre for PAF's	2,96,403							2,96,403	5000 villagers'
		Medical Consultancy Fee of Doctor exclusively for PAF's	2,75,000	7,15,000	7,20,000	6,61,000	10,80,000	12,00,000	7,00,000	53,51,000	5000 villagers'
		Medicine for Community Health Clinic at Derang & Ghantianali Health Centre, Three days in a week for PAF's.	1,92,686	8,40,000	5,16,000	6,31,000	5,56,080	6,00,000	3,50,000	36,85,766	5000 villagers'
		Provision of 24 hour Ambulance service to PAF's		3,10,312						3,10,312	5000 villagers'
		Dengu awareness in Kaniha Block & provide Banner, Poster& Leaflet for Dengu awareness		49,750						49,750	10000 Persons
		Support for Intensive Pulse Polio Immunization Programme in Kaniha Block		12,000						12,000	10000 Persons
		Organised Single Window Camp for Person with Disability in collaboration with Kaniha Block.		48,400						48,400	3000 Persons
		Organised a Free Check Up Eye Camp with providing free medicine & spectacles for PAF's .		60,820						60,820	300 Villagers
		Organised a Malaria Awareness & Check Up Camp with providing free medicine			51,064					51,064	400 Villagers
		Donated fogging Machine to Angul Municipality for mosquito eradication program.			3,93,278					3,93,278	40,000 Persons
		Organised a Medical Camp on Maternity Health with providing free medicine to PAP's .			61,800					61,800	212 Villagers
		Supporting for Blood Donation Camp at Derang organsied by the Village Youth			11,900					11,900	100 Villagers
		Organised a Medical Camp on Child Health with providing free medicine to PAP's .			37,910					37,910	222 Villagers
		Fogging & Antilarva Spray in Peripheral Villages			43,146	58,427	58,427	50,160		2,10,160	
		Supporting for Strengthening Health Systems of Angul District				6,66,000				6,66,000	
		Organised a Arthitis Camp with providing free medicine to PAP's .				60,328				60,328	
		Total	**9,74,089**	**20,36,282**	**18,35,098**	**20,76,755**	**16,94,507**	**18,50,160**	**10,50,000**	1,15,16,891	
		20 Nos. of Ceiling Fan provided for Boarding Students residing at Hostel of Ashram High School, Derang	22,300							22,300	340 students
		School bus for Students studying at Saraswati Sisu Mandir, Patharmunda, Evershine Nursery School, NTPC, St. Merry School, NTPC & Kidzee School, NTPC from Derang, Ghantianali & other		4,40,000	8,87,000	12,54,499	15,29,001	17,23,100	9,69,467	68,03,067	250 students
		School Bus for Students studying at Bhaneswari High School & Ashram High School from Ghantianali Village.			80,000	1,00,000	1,00,000			2,80,000	70 students
		Electrification with supplying Inverter at Ashram High School & Sebasahram UP School		1,07,000						1,07,000	340 students
		15 Nos. of Ceiling Fan & other electrical items to Ashram High School, Derang			22,500					22,500	340 students
		10 Nos. of Ceiling Fan & other electrical Items to Sebasshram UP School, Derang			15,000					15,000	150 students
		Electrification with supply of materials at Hatapada UP School, Derang			30,000					30,000	100 students
		Electrification of Ghantinali ME School, Ghantianali			25,000					25,000	120 students
		Electrification with supply of materials at Ash pond ME School, Majhi Sahi Derang			25,000					25,000	180 students
		School bags for students of 11 schools of peripheral villages.		2,21,494		2,67,960				4,89,454	1500 students

Sl. No.	Sector	Details of Activity	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	Total Cost Incurred (Rs.)	No. of Persons/Families/ Villagers benifited (Approx.)
6	Education	Acquaguard for Ashram School & Sebasahram School		20,000						20,000	500 students
		Distribution of Educational Kit to students of 11 schools of peripheral villages.			49,600	75,500				1,25,100	1500 students
		Distribution of 25 nos. of School Bench to Ghantianali ME School			1,15,000					1,15,000	150 students
		Electrification with supply of materials at Kuda Sahi UP School, Ghantianali			32,098					32,098	90 students
		Construction of Wall in class room for computer lab at Bhaneswari School				27,550				27,550	110 students
		Electrification with supply of materials at Bole UP School, Bole				34,758				34,758	110 students
		Supplying & Fixing 2 nos. Street Light at Ashram High School, Derang & Saraswati Sisu Vidya Mandir				65,943				65,943	600 students
		Supplying & Fixing 3 nos. of Swing & 3 nos. of Sliding in 3 nos. Project affected Schools				54,480				54,480	750students
		Infrastructure work in Shreemaa Aurobindo School, Derang					23,110			23,110	
		Construction of Boundary wall of Takua U P. School, Takua					6,42,610			6,42,610	
		Construction of Playground with boundary wall of Takua U P. School, Takua					14,65,191			14,65,191	
		Provided Water Cooler with Purifier for safe drinking water to Kaniha College						1,50,000		1,50,000	
		Provided 0.75 HP Submersible Pump with Accessories at Sebashram School, Derang						24,180		24,180	
		Total	**22,300**	**7,88,494**	**12,81,198**	**18,80,690**	**37,59,912**	**18,97,280**	**9,69,467**	**1,05,99,341**	
7	Vocational Training	Skill up gradation of 111 (43+40+28) youths from PAF's through ITI education at KIIT University, Bhubaneswar		20,87,919	41,49,720	32,96,330	16,16,800	1,30,470		1,12,81,239	111 students
		Vocational Training to Project Affected Women through Tailoring training at Derang		54,099						54,099	60 Persons
		Vocational Training to Project Affected Women through Tailoring training at Majhi sahi		30,000						30,000	30 Persons
		Vocational Training to Project Affected Women through Tailoring training at Ghantinali Sadak Sahi		30,000						30,000	30 Persons
		Vocational Training to Project Affected Women through Tailoring training at Ghantinali (Harijan Sahi)			30,000					30,000	30 Persons
		Vocational Training to Project Affected Women through Tailoring training at Majhi sahi (Tala)			30,000					30,000	40 Persons
		Vocational Training to Project Affected Women through Beauty Culture at Majhi sahi			85,000					85,000	25 Persons
		Vocational Training to Project Affected Women through Soft Toys Training at Majhi Sahi			42,885					42,885	20 Persons
		Vocational Training to Project Affected Women through Mashroom Cultivation Training at Ghantianali			24,858					24,858	55 Persons
		Total	**0**	**22,02,018**	**43,62,463**	**32,96,330**	**16,16,800**	**1,30,470**	**0**	**1,16,08,081**	
8	Safe Environ-	Water sprinklings in Village Road for Dust suppression.	2,68,600	7,45,000	2,06,800					12,20,400	5000 villagers
		Plantation for Safe Environment at Badagunduri		8,29,020	6,23,812	2,92,500	3,42,622			20,87,954	5000 villagers
		Avenue Plantation in Bhubaneswar			4,39,147					4,39,147	

Sl. No.	Sector	Details of Activity	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	Total Cost Incurred (Rs.)	No. of Persons/Families/ Villagers benifited (Approx.)
	ment	Avenue Plantation on Takua Road					84,326			84,326	
		Plantation for Safe Environment at Ashram High School						20,000		20,000	
		Total	**2,68,600**	**15,74,020**	**12,69,759**	**2,92,500**	**4,26,948**	**20,000**	**0**	**38,51,827**	
		Promotion & Development of Sports Activities (Volleyball Tournament)		10,000						10,000	
		Talcher Book Fair for felicitate local writer and poet		20,000						20,000	
		Celebrated Law Day with Talcher bar Association		10,000						10,000	
		Provided Support for Celebration of Republic Day at Block Office Talcher and Kaniha.		5,000	5,000	40,000		10,000		60,000	
		Provided Support to Block Level Mohastav at Block Office, Kaniha to enhance local Cultural Heritage		24,600						24,600	
		Donated to District Red Cross Branch, Angul through Sub-Collector, Talcher		5,000	5,000					10,000	
		Provided Support to TIRATARANGA Organisation towards organizing a National Writers Conference		20,000		10,000				30,000	
		Celebration of Republic Day & Independence day at 14 Schools & 6 Anganbadi Centers of Derang Panchayat	25,000	40,000	50,000	22,916	45,202	47,680	25,000	2,55,798	
		Promotion of Local Cultural Function of SC community, Derang			5,000	8,100				13,100	
		Promotion of Angul Zila Mohastav (TARANG) to enhance Cultural Heritage of Angul Dist.	1,54,420		3,00,000					4,54,420	
		Promotion of Local Cultural Function		4,000						4,000	
		Promotion of Oriya Cultural Heritage		10,000						10,000	
		Promotion of State Level Inter School Sports Competition-2010-2011	25,000							25,000	
		Celebration of Birth Anniversary of Quintessential Visionary Leader Late Biju Pattanik		10,000						10,000	
		Promotion & Development of Sports Activities (Talcher Cup Football 2011)		96,800						96,800	
		Promotion of Inter State Volleyball Sports Competition at badagunduri			10,000					10,000	
		Provided Support to Block Level Mohastav-2012 at Block Office, Kaniha to enhance local Cultural Heritage			20,000					20,000	
		Supporting for constrcution of Shree Gundicha Mandir, Angul			2,19,715					2,19,715	
		Supporting for Hingula Jatra, Talcher			20,000					20,000	
9	Socio Cultural	Supporting for constrcution of Shree Ram Mandir, Derang				1,00,000				1,00,000	
		Promotion of Local Cultural Function, Tareni Yatra, Ghantianali				50,000				50,000	
		Promotion of Local Cultural Function Tarini Mandir, Kaniha				2,100				2,100	
		Promotion of Local Cultural Function of SC community, Kakudia				2,100				2,100	
		Supporting for Development of Power Youth Club, Kaniha				10,000				10,000	

Sl. No.	Sector	Details of Activity	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	Total Cost Incurred (Rs.)	No. of Persons/Families/ Villagers benifited (Approx.)
		Promotion of Local Cultural Function Dola Yatra, Patharmunda				10,000				10,000	
		Supporting for Biswa Shanti Yanga, Kaniha				6,100				6,100	
		Donated to Orissa State Safety Promotional Association, Bhubaneswar				15,000				15,000	
		Provided Support to JALTRANGA Organisation				5,000				5,000	
		Provided support for Annual Function of to Navajyoti School, Derang				5,000				5,000	
		Celebration of Car Festival-2013 at Talcher				5,000				5,000	
		Celebration of 76th Annivesary-Talcher Swadhinata Sangram				25,000				25,000	
		Provided Support for Celebration of Independence Day 2013 Sub-Collector Talcher office				10,000		10,000		20,000	
		Supporting for Jagannath Temple Samiti for July'13				10,000				10,000	
		Promotion of Local Cultural Function/Festival in Peripherial Village				6,64,101	7,00,756	15,03,000		28,67,857	
		Supporting for Talcher Mahostav				30,000				30,000	
		Supporting for refreshment in Volley Ball Home at Angul				15,000				15,000	
		Supporting for refreshment in Inter district Sahani Cup Football Match				24,000				24,000	
		Financial Assistance for conducting Social Activity at Tolakbeda village				51,000				51,000	
		Total	**2,04,420**	**2,55,400**	**6,34,715**	**11,20,417**	**7,45,958**	**15,70,680**	**25,000**	**45,56,590**	
10	**Relief Measures**	(1) Provided 15 blanket to 06 nos. of families (fire caught at their houses on dated 27.12.10) (2) Grocery, Cloth & cooking utensil supplied to Fire victim of Jharia Sahi, Derang (3)Grocery, Cloth & cooking utensil supplied to Fire victim of Ghantianali-19.10.11	15,480	7,000				5,000		27,480	
		Pay sum to family in case of Death of any PAP @ 5,000/- each for their funeral ceremony of the deceased person.		30,000	1,75,000	1,20,000	1,30,000	1,35,000	80,000	6,70,000	
		Total	**15,480**	**37,000**	**1,75,000**	**1,20,000**	**1,30,000**	**1,40,000**	**80,000**	6,97,480	
GRAND TOTAL EXPENSES			**1,25,75,024**	**2,54,87,364**	**6,92,53,576**	**9,85,90,850**	**6,18,58,975**	**66,18,580**	**34,26,126**	27,78,10,495	

Annexure – 07

AMBIENT NOISE LEVEL MEASUREMENT

M/S-JINDAL INDIA THERMAL POWER LTD.
Period: April, 2016 to September, 2016

Sl.No.	Locations	Position	SPL dB(A)
01.	Near RCO Complex	Centre	45.05
02.	Near First Aid Station & New Gate	Centre	48.1
03.	Near Labour hutment (Ghantianali Area)	Centre	45.2
04.	Near AAQMS No-4	Centre	44.7
05.	Near Old Gate	Centre	46.8

Note: Survey Conducted by in house team of JITPL Environment Department.

Annexure – 08

ON LINE AMBIENT AIR QUALITY RESULTS
M/S: JINDAL INDIA THERMAL POWER LTD
PERIOD: April, 16 to September,16

Sl.No.	Locations	Unit	Parameters	Concentration	CPCB standards
01.	Near Switch Yard	microgram/M3	PM10	81.9	100
		microgram/M3	PM2.5	44.61	60
		microgram/M3	SO2	14.9	80
		microgram/M3	NOx	20.4	80
		mg/M3	CO	0.41	2
02.	Near Town ship	microgram/M3	PM10	61.4	100
		microgram/M3	PM2.5	43.9	60
		microgram/M3	SO2	7.81	80
		microgram/M3	NOx	17.3	80
		mg/M3	CO	0.37	2
03.	Near Raw Water Pump House	microgram/M3	PM10	57.8	100
		microgram/M3	PM2.5	30.11	60
		microgram/M3	SO2	6.95	80
		microgram/M3	NOx	20.12	80
		mg/M3	CO	0.32	2
04.	Near Takua Gate	microgram/M3	PM10	77.19	100
		microgram/M3	PM2.5	53.65	60
		microgram/M3	SO2	16.3	80
		microgram/M3	NOx	22.7	80
		mg/M3	CO	0.62	2

Note: **All readings are average value.**

Annexure No- 09

ENVIRONMENT MANAGEMENT CELL
MANPOWER DETAILS
JINDAL INDIA THERMAL POWER LTD

SL.NO.	NAME	DESIGNATION	QUALIFICATION
01.	Dr.K.K.Raut	Head(Environment)	M.Sc., Ph.D. (Environment)
02.	Mr.A.K.Behera	Asst.Manager	M.Sc.(Horticulture)
03.	Mr.Padmanav Behera	Supervisor	Matriculation
04.	Mr.Ashok Das	Gardener	Matriculation

Annexure No-10

COST PROVISION FOR ENVIRONMENTAL MEASURES

JINDAL INDIA THERMAL POWER LTD.

Sl.No.	Description of Item	Capital Cost (Rs in Crores)	Recurring Cost (Rs in Crores)
1	Raw water treatment system	90	9.0
2	Wastewater treatment system	5	0.5
3	Rainwater harvesting system	2	0.2
4	Air pollution control systems including ESP	90	9.0
5	One bi-flue RCC stack (275m height)	60	6.0
6	Noise pollution control systems	8	0.8
7	Environmental Monitoring / Environmental Laboratory	0.5	0.2
8	Occupational health & safety	0.5	0.2
9	Green belt development	1.0	0.2
	Total	**257**	**26.1**