JNSTPP/ EC/ MoEF/ 2016-17/14

May 13th, 2017

The Director
Ministry of Environment, Forest & CC
Govt. of India
Regional Office, Western Region
Bhopal – 462016 (M.P.)

Sub: Submission of Half Yearly Environmental Clearance Compliance Report of Jaypee Nigrie Super Thermal Power Project (A Division of Jaiprakash Power Ventures Limited) of 2x660 MW Coal Based Thermal Power Plant and 2.0 MTPA Cement Grinding Unit at village Nigrie, Tehsil Sarai, Singrauli Dist. in Madhya Pradesh.

Sir,
With reference to the above mentioned subject we are submitting the compliance report to Stipulated conditions of E.C. in hard and soft copy for the period (Oct. 2016 – March 2017) of Jaypee Nigrie Super Thermal Power Project, EC reference nos.: J-13012/223/2007-IA-II(T) dated 25.02.2010 and its amendment dated 13.07.2012 for the JNSTPP (2x660 MW) & JNCGU (2.0 MTPA) for your kind record please.

Thanking You
Yours Faithfully
For Jaypee Nigrie Super Thermal Power Project
(A Division of Jaiprakash Power Ventures Ltd.)

Vinod Sharma
President (O & M)

Encl. – As above
CC to:
1) Zonal Office
Central Pollution Control Board — **- For information please.**
Bhopal – (M.P.) 462016

2) Member Secretary
Madhya Pradesh Pollution Control Board — **- For information please.**
Bhopal (M.P.) 462016

3) Regional Officer — **- For information please.**
Madhya Pradesh Pollution Control, Singrauli

Site : Jaypee Nigrie Super Thermal Power Project, Village & P.O. Nigrie, Tehsil Deosar, Distt. Singrauli (M.P.) Ph. : +91 (7801) 286021-36 Fax : +91 (7801) 286020
Corp. Office : Sector - 128, Noida - 201304, Uttar Pradesh (India) Ph. : +91 (120) 4609000, 2470800 Fax : +91 (120) 4609464, 4609496
Head Office : 'JA House', 63, Basant Lok, Vasant Vihar, New Delhi - 110 057 (India) Ph. : +91 (11) 26141540, 26147411 Fax : +91 (11) 26145389, 26143591
Regd. Office : JUIT Complex, Waknaghat, P.O. Dumehar Bani, Kandaghat-173215, Distt. Solan (H.P.) Ph. : +91 (1792) 257999, 245367 Fax : +91 (1792) 245362
Website : www.jalindia.co.in CIN : L40101HP1994PLC015482
Regd Office : Complex of Jaypee Nigrie Super Thermal Power Project, Nigrie Tehsil Sarai District Singrauli 486669 (Madhya Pradesh)

JAYPEE GROUP

Six Monthly Compliance Report
Of
Environmental Clearance
Period: October' 2016 - March' 2017

Of

1320 (2x660) MW Jaypee Nigrie Super Thermal Power Plant
&
2.0 MTPA Jaypee Nigrie Cement Grinding Unit
At
Nigrie, District Singrauli, Madhya Pradesh

Submitted To:
Regional Office, Western Zone
Ministry Of Environment, Forest & Climate Change
&
Zonal Office, Central Pollution Control Board, Bhopal
&
Madhya Pradesh Pollution Control Board, Bhopal

JAIPRAKASH POWER VENTURES LIMITED
2 X 660 MW Coal based Thermal Power Plant
14th Half Yearly Environmental Compliances statement of the stipulation of MoEF
EC Letter No.:- J-13012/223/2007-IA.II dated 25.02.2010 and
Subsequent amendment in Environmental Clearance vide
Letter No.J-13012/223/2007-IA.II (T) Dated 13.07.2012

Clause No.	Terms and Conditions Description as per EC letter	Compliance Status report June 2017
i.	Environmental Clearance is subject submission of complete details of R & R action plan (as applicable) with time schedule for implementation to the Regional Office of the Ministry and the Competent Authority in the state govt. The details shall include name of head of family wise details, the area of homestead and other land to be acquired and the compensation paid/proposed to be paid etc. The time schedule of implementation shall be given.	Our R&R plan has been submitted to the Regional Office of the Ministry vide our letter No. JPVL/JNSTPP/MOEF/2010 dated 20th January 2011. It was subsequently modified incorporating suggestions of MOEF and was resubmitted vide letter no. - JPVL/JNSTPP/MOEF/2011 dated 29.06.2011.
ii.	Hydro-geological study of the area shall be reviewed annually and results submitted to the Ministry and concerned agency in the State Govt. In case adverse impact on ground water quantity & quality is observed, immediate mitigating steps to contain any adverse impact on ground water shall be undertaken.	Hydro-geological study of the area is being carried out by M/s. Hydro Geo-survey Consultant Pvt. Ltd. Jodhpur, Rajasthan and reports submitted to concerned departments timely. The last study was done in July 2016. Water level from existing peizometer wells being carried out four times a year in premonsoon (**May**), monsoon (**August**), post-monsoon (**November**) and winter (**January**) seasons. Periodic review is being done. Quality of ground water is being monitored in and around the plant premises. Ground water level in nearby villages is also being monitored to know the seasonal fluctuations. There is no adverse impact found in the quality of Ground Water.

		Presently, JPVL is drawing Industrial and Domestic water from surface water source (Gopad River) within quantity allocated (42 MCM) by DoWR, Madhya Pradesh.
iii.	Minimum required environmental flow suggested by the competent authority of the State Govt. shall be maintained in the Channel/Rivers even in lean season. It shall be ensured that natural drainage in the region is not disturbed due to activities associated with operation of the plant.	Being Complied, We have already obtained permission from water resource department Govt. of Madhya Pradesh for withdrawal of 42 MCM water for both Units from Gopad river. The above quantity is adequate to meet the plant's requirement including lean season. All plant roads and drains are design based. Natural Drainage in the region shall not be disturbed due to the activities associated with the operation of the plant. Water harvesting pond shall be provided to manage runoff within colony area.
iv.	A stack of 275 m height (Bi-flue) shall be provided with continuous online monitoring equipments for SO2, NOx and PM. Exit velocity of flue gases shall not be less than 25 m/sec. Mercury emission from stack shall also be monitored on periodic basis.	Bi-flue Stack of 275 m height is installed with Online monitoring equipments for PM, SO_2, NOx & Hg. The exit velocity of flue gases is more than 25.0m/sec as stipulated. Mercury measurement is also being done through online analyzers.
v.	For cement Grinding Unit two stacks of 55 m each with exit velocity not less than 10 m /s shall be installed. mission from the Grinding Unit shall not exceed 50 mg/Nm3.	Two stacks of 55m each with exit velocity not less than 10 m /s have been installed for Cement Grinding Unit. Thermal India Ltd. has supplied and erected 2 nos. of Bag Houses attached to cement mills(Ball & Roll Press Mill) with guaranteed emission level of <50 mg/Nm3 at full load. Each Bag House has 780 & 1188 bags respectively. ***Note:* Cement Unit is still non operational Due To Shortage Of Input Raw Material.**
vi.	Fugitive emission in the grinding Unit shall be controlled and data on fugitive emission shall be maintained in a log book and duly signed by the Head, Environment on a daily basis.	Noted, To control fugitive emission all raw material conveying belt conveyors are covered. Cyclones followed by bag filters are provided at all transfer points. Additionally, mobile water sprinklers are deployed in grinding Unit area to suppress fugitive dust while movement of vehicles on haulage roads.
vii.	High Efficiency Electrostatic Precipitators	Highly efficient Electrostatic Precipitators with efficiency of 99.93 % have been installed for each boiler (ESPs) to meet particulate emission

	(ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm3.	less than 50 mg/Nm3. Continuous Online Emission Monitoring meters installed to Monitor emissions for both boiler stacks and data is being uploaded to MPPCB & CPCB Website, and the results are within the Norms. For stack U-I average concentration of PM is 34.61 mg/Nm3, maximum concentration is 36.68 mg/Nm3 & the minimum concentration is 33.01mg/Nm3. For stack U-II average concentration of PM is 35.29 mg/Nm3, maximum concentration is 36.08 mg/Nm3 & the minimum concentration is 34.51 mg/Nm3.
viii.	Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Adequate air pollution control measures such as dust extraction system (Cyclone followed by bag filters) in coal crusher and coal transfer points, jet sprinkler type dust suppression system in coal yard and dry fog type dust suppression system in belt conveyor have been provided. Elaborated dust extraction & dust suppression system have been incorporated in the design of ash handling plant.
ix.	Utilization of 100 % Fly ash generated shall be made from 4th year of operation of the plant. Status of implementation shall be reported to the regional Office of the Ministry from time to time.	Fly ash silo established to collect dry ash for further utilization. Bottom ash is being disposed off in the ash pond in lean slurry mode, with recirculation of ash water. 100% Fly Ash is being Utilized as per Ash Utilization Notification 2009. Status of Implementation is being reported to Regional Office of MPPCB regularly.
x.	Fly Ash shall be collected in dry form and storage facility (silos) shall be provided. 100% fly ash utilization shall be ensured from 4th year onwards. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry. Mercury and other heavy metals (As, Hg, Cr, and Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off	Compliance assured We have established a dry silo to collect dry fly ash & a fly ash bin of 400 ton capacity for utilization of ash in cement grinding unit and a storage silo of 20,000 ton capacity for utilization of dry ash. 100% Fly Ash is being Utilized as per Ash Utilization Notification 2009. Bottom ash is being disposed off in the ash pond in the form of high concentration slurry. **Regular monitoring of heavy metals is being carried out periodically. Report is attached.**

<table>
<tr><td></td><td>in low lying area.</td><td></td></tr>
<tr><td>xi.</td><td>Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached.</td><td>Well designed ash dyke with HDPE lining has been established as per the guidelines of MoEF, CEA & CPCB. Adequate safety measures were taken for any unforeseen incidents.

Adequate safety measures also taken to protect the ash dyke from getting breached.</td></tr>
<tr><td>xii.</td><td>For disposal of Bottom Ash (if proposed to be undertaken) in abandoned mines shall be ensured that the bottom and sides of the mined out areas are adequately lined with clay before Bottom Ash is filled up. The project proponent shall inform the state Pollution Control Board well in advance before undertaking the activity.</td><td>Not applicable, as the disposal of bottom ash is not envisaged in any abandoned mines. Bottom ash is being carried in slurry form to the ash dyke situated inside the plant premises.</td></tr>
<tr><td>xiii.</td><td>Closed cycle cooling system with natural draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms.</td><td>Recirculation type Closed cycle Cooling water system with Natural Draft Cooling Towers has been provided. The blow down is being treated adequately to meet the prescribed norms through High Rate Solid Contact Clarifier (HRSCC), Dual Media Filter (DMF), Ultra Filtration Unit (UF) and RO system and reused in Cooling Tower Makeup, Service Water and HVAC system. The RO reject water is used in Dust Suppression in Coal Handling Plant Areas.

TREATED EFFLUENT ANALYSIS
For the period of October 2016 - March 2017

<table>
<tr><th>Month</th><th>pH</th><th>SS ppm</th><th>TDS ppm</th><th>COD ppm</th><th>O&G ppm</th><th>BOD ppm</th></tr>
<tr><td>October -16</td><td>7.12</td><td>24.0</td><td>1910</td><td>89.90</td><td>1.79</td><td>18.0</td></tr>
<tr><td>November -16</td><td>7.10</td><td>22.0</td><td>1880</td><td>87.20</td><td>2.10</td><td>16.0</td></tr>
<tr><td>December -16</td><td>7.08</td><td>20.0</td><td>1850</td><td>88.50</td><td>2.41</td><td>17.0</td></tr>
<tr><td>January -17</td><td>7.12</td><td>23.0</td><td>1810</td><td>80.30</td><td>2.16</td><td>18.2</td></tr>
<tr><td>February -17</td><td>7.25</td><td>25.0</td><td>1870</td><td>82.20</td><td>2.02</td><td>18.7</td></tr>
<tr><td>March -17</td><td>7.12</td><td>24.0</td><td>1862</td><td>86.30</td><td>2.36</td><td>19.2</td></tr>
</table>
</td></tr>
<tr><td>xiv.</td><td>The treated effluents conforming to the</td><td>All the effluents treated adequately in the ETP. Treated water is being reused within the plant. The concept of “Zero Discharge Condition”</td></tr>
</table>

<table>
<tr><td></td><td>prescribed standards only shall be recirculated 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.</td><td>implemented except during monsoon period.

Separate drainage network established for storm water.

Also upstream & downstream water quality of Gopad River is being assessed.</td></tr>
<tr><td>xv.</td><td>A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation.</td><td>Sewage Treatment Plant has been installed & treated water reused suitably within the plant premises for green belt development.

TREATED SEWAGE ANALYSIS
For the period of October 2016 - March 2017

<table><tr><th>Month</th><th>pH</th><th>SS ppm</th><th>COD ppm</th><th>BOD ppm</th></tr><tr><td>October -16</td><td>7.17</td><td>8.5</td><td>47.5</td><td>8.3</td></tr><tr><td>November -16</td><td>7.23</td><td>9.0</td><td>48.0</td><td>8.0</td></tr><tr><td>December -16</td><td>7.11</td><td>8.0</td><td>47.0</td><td>8.5</td></tr><tr><td>January -17</td><td>7.26</td><td>8.0</td><td>47.0</td><td>9.0</td></tr><tr><td>February -17</td><td>7.35</td><td>9.0</td><td>48.0</td><td>8.2</td></tr><tr><td>March -17</td><td>7.45</td><td>8.0</td><td>46.0</td><td>9.1</td></tr></table></td></tr>
<tr><td>xvi.</td><td>Rainwater harvesting should be adopted. Central Groundwater Authority/Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished.</td><td>Rain Water Harvesting scheme has been prepared & sent to obtain Approval of the technology from Regional Director, Central Ground Water Board, Bhopal and submitted the same to MoEF along with the EC Compliance Report of June, 2013.

Rainwater harvesting pit within the township area was constructed to augment the ground water table and to recharge surface water in monsoon season.</td></tr>
<tr><td>xvii.</td><td>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 lay out shall be submitted to the Ministry as well as to the</td><td>A Fire tender with requisite team is in place at site which is also supporting the requirements in the neighboring villages with adequate safety measures to take preventive control measures.

Mock drills are being conducted periodically.

Fire hydrant and water jet type sprinklers established in the coal yard.

The duly approved Off- site & On- site Disaster Management Plan was already submitted vide letter No. 05 /4 0 /A-2/MHC/V1/12/6175 dated 04/10/2014.</td></tr>
</table>

	Regional Office of the Ministry.	
xviii.	Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHSA shall be made in the plant area in consultation with the Department of Explosives, Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventually in case of an accident taking place due to storage of oil.	The design of the plant meets the requirements. Storage facilities for auxiliary liquid fuel are made in the plant area in consultation and consent from Department of Explosives, Nagpur. Quality of liquid fuel would meet the standard stipulated. While procuring LDO/HFO, it is checked that limit of sulphur content shall not be more than 0.5%. The fuel LDO & HFO properly stored in minimum risk area & as per the norms fixed by the Chief Controller of Explosive. Disaster Management Plan has been in place prior to Commissioning of the Project. Mock drills are being conducted periodically. A Fire tender with requisite team is in place at site which is also supporting the requirements in the neighboring villages. Disaster Management Plan has been prepared to meet any eventuality in case of any accident taking place due to storage of oil. License No. P/HQ/MP/15/2877(P311712) dated 14th June 2013 has been obtained from Petroleum and Explosive Safety Organization (PESO), Nagpur for our Petroleum Class C in bulk installation.
xix.	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adverse affected due to the projects.	Eight Peizometer locations are identified at down and upstream of Ash ponds. We have initiated action to assess and monitor heavy metals and results are expected in about 4 - 6 months after that the comparison will be done and the report will be submitted to RO, MoEF and RO, MPPCB.
xx.	Green belt consisting of 3 tiers of plantations of native species around	➢ Complied with and Green belt development/ plantations are being carried out on available land. An effective green belt is being developed with local species in consultation with M/s

	plant and at least 100 m width shall be raised. Wherever 100 m width is not feasible a 50 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not less than 2500 per ha with the survival rate not less than 70%.	Nature Forever Organization as per CPCB guidelines, Efforts are further made to develop more green belt in the plant. A nursery is established at site. Besides this, we have also developed lawn & gardens to create aesthetic view inside the plant premises. ➢ Required Green belt & Green cover being developed continuously in consultation with M/s Nature Forever Organization. ➢ Tree density is restricted to 2500 per ha with the survival rate 90% as per MoEF letter dated 25.02.2010. ➢ Greenbelt being developed in a phased manner along the periphery of the Power Plant and Grinding Unit. ➢ Adequate green belt developed in and around the Project to control the fugitive emissions and to prevent the spreading of these emissions. ➢ More than 33% of area in and around Power plant i.e. around 48.0 hectares & in Cement plant i.e. around 6.0 hectares of green belt has been developed as per guidelines given by CPCB.
xxi.	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First Aid and sanitation facility provided for the drivers and contract workers during construction phase. Site sanitation and housekeeping is maintained regularly. 10 beds Hospital at site is equipped with all required facilities for First Aid.
xxii.	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 75 dB (A). For people working in the high noise area, requisite personal protective equipment like ear plugs/ear muffs etc shall be provided. Workers engaged in noisy area such as turbine area, air compressors etc shall be periodically examined to maintain audiometric	➢ Complied, the steam turbine (ST) is enclosed in the building and acoustic enclosures are provided to minimize noise from these machines. ➢ All The equipments are provided with acoustic hoods, silencers to control noise. The ambient noise level is well below 75 dBA (day time) and 70 dBA (night time) as prescribed under EPA rule, 1989. ➢ Ambient noise levels in and around the Plant area are monitored regularly by M/s Vardan Enviro lab, Gurgaon. Noise levels are well under the limit. ➢ All safety items like Ear muffs, Helmets, Shoes, Nose filters, spectacles are provided to all the employees and made mandatory. Periodic audiometric check up is being carried out and records are being maintained.

	record and for treatment of any hearing loss including shifting to non noisy /less noisy areas.	**NOISE LEVELS** **FOR THE PERIOD OF October 2016 - March 2017** **NOTE** - Spot Noise Levels at 1 meter distance from turbine in db(A)

Month	ST-1	ST-2	Air Compressor House
October -16	86.4	81.9	68.5
November -16	85.7	82.3	73.9
December -16	82.8	79.8	78.2
January -17	82.0	80.1	79.5
February -17	82.1	77.9	74.3
March -17	82.8	79.0	74.6

xxiii.	Regular monitoring of Ground level concentration of SO2, NOX. RSPM and Hg 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 the Ministry. The data shall also be put on the website of the company.	➢ Baseline monitoring was conducted during EIA. Weekly monitoring during operational phase is being carried out regularly. ➢ In case of any exceedance, necessary control measures are ensured. ➢ Four continues Ambient Air Quality Online Monitoring Stations are provided along the boundary considering the wind rose/wind directions and the total data of the stack and Ambient air is connected with MPPCB server at Bhopal & CPCB server at Delhi. ➢ Compliance on EC conditions including results of monitoring data is being uploaded in unit's web site along with EC Compliance Report and displayed at the main gate of the company. ➢ Regular monitoring of PM10, PM2.5, SO2 & NOx is being carried out as per frequency & monitoring results are well within the norm. ➢ Offline Monitoring results are being submitted to MPPCB quarterly.

AAQM Results
For the period of October 2016 - March 2017

LOCATION : Near STP - Colony area					
	PM10 (µg/m3)	**PM2.5 (µg/m3)**	**SO2 (µg/m3)**	**NOX (µg/m3)**	**CO (mg/m3)**
Minimum	68	33	7	17	0.56
Maximum	73	37	9	21	0.62
Average	70	35	8	20	0.59
LOCATION : Near H2 Gas cylinder shed					
	PM10 (µg/m3)	**PM2.5 (µg/m3)**	**SO2 (µg/m3)**	**NOX (µg/m3)**	**CO (mg/m3)**

		Minimum	64	31	6	16	0.51
		Maximum	70	36	8	19	0.54
		Average	67	34	7	18	0.53
		LOCATION : Near Watch tower 22 (Grinding Unit)					
			PM10 (µg/m3)	**PM2.5 (µg/m3)**	**SO2 (µg/m3)**	**NOX (µg/m3)**	**CO (mg/m3)**
		Minimum	74	42	10	23	0.69
		Maximum	83	47	11	26	0.74
		Average	80	44	11	24	0.72
		LOCATION : Near fuel storage tank					
			PM10 (µg/m3)	**PM2.5 (µg/m3)**	**SO2 (µg/m3)**	**NOX (µg/m3)**	**CO (mg/m3)**
		Minimum	67	32	7	18	0.54
		Maximum	76	40	9	23	0.68
		Average	72	38	8	21	0.63
xxiv.	A good action plan for R & R (if applicable) with package for the project affected persons be submitted and implemented as per prevalent R & R policy within three months from the date of issue of this letter.	The report has been submitted to MoEF & CC on 20th Jan 2011 vide our letter No. JPVL/JNSTPP/MOEF/2010. It was subsequently modified incorporating suggestions of MOEF and was resubmitted vide letter no. - JPVL /JNSTPP/MOEF/2011 dated 29.06.2011.					
xxv.	An amount of Rs. 24 crores shall be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs. 4.8 Crore per annum shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within one month along with road map for implementation.	➢ A separate budget earmarked for CSR activities. CSR study report already submitted to the ministry vide letter no. - JPVL/JNSTPP/MOEF/2010 dated 20.01.2011 and 29.06.2011. ➢ The capital fund of Rs 24 Crores is earmarked for CSR activities and Rs. 4.8 Crores per annum fund kept for recurring expenditure. ➢ The company is carrying out CSR activities in the vicinity of the Project as per the directions and guidance of the District Administration. ➢ Providing drinking water facility benefitting to the nearby villages. ➢ Unit is also investing on CSR Activities like conducting Medical camps in villages, Plantation programs, Road development activities, women empowerment, etc... ➢ Total expenditure incurred up to March, 2017 is Rs.1.79 Crores.					
xxvi.	As part of CSR programme the company	Based on Need Base Assessment Study for development of nearby villages, an action plan was worked out for income generating					

	shall conduct need based assessment for the nearby villages to study economic measures with action plan which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training individuals imparted to take up self employment and jobs.	projects for up-liftment of poor section of society. **The following activities were undertaken:** Sardar Patel Uchchtar Madhyamik Vidyalaya was started functioning up to class five w.e.f. July, 2011 and subsequently upgraded up to 10th class in July'2016 session. Annapurna mess is serving the free mid day meal to students. An ITI institute is being constructed for development of skilled man power in nearby areas of project. Other CSR activities include Stipend for secondary school students, Paying tribute to Old Age Persons, Vocational Training for students, and Drinking Water facility to local habitants. Many villagers were sent to Chitrakoot for cataract operation on company expenses. District Administration has taken initiative to give training through skill development programme at ITI Waidhan; the company has contributed Rs. 12,00,000/- against this programme. About 100 persons of nearby villages have been identified and sent for this training.
xxvii.	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Labor hutments had been established & developed with all required amenities like toilet, drinking water, & infrastructure like internal road etc. for construction phase only.
xxviii.	The project proponent shall advertise in at least two local 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	As mandated, We have informed the public through the local newspaper announcement in vernacular language that the project has been accorded environmental clearance by the ministry and copies of the clearance are available with state pollution control board/committee and may also seen at website of the MoEF at http:/envfor.nic.in.

	the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen as Website of the Ministry of Environment and Forests at http: / /envfornic.in	
xxix.	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal corporation, Urban Local Body and the local NGO, if any from whom suggestions / representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Copy of EC accorded has been sent to local panchayat & Zila parishad. We have uploaded our EC in our company website.
xxx.	A separate Environment Managements Cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	We have formed a separate full-fledged Environment management department headed by Plant Head supported by Add. General Manager, Officer and chemist of laboratory and technician for implementation and compliance.
xxxi.	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office MoEF, the respective Zonal Office of CPCB and the SPCB. The	Complied, We are regularly sending six monthly compliance reports to MOEF & CC regional office, CPCB and SPCB every 6 months, The same has been sent by email also. Six monthly Compliance on EC conditions including results of monitoring data is being uploaded in unit's web site and We have also made available relevant critical parameters in display board near the main gate.

	criteria pollutant levels namely; SPM, RSPM, SO2, NOX (ambient levels as well as stack) shall be displayed as a convenient location near the main gate of the company in the public domain.	
xxxii.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office OF MoEF, the respective Zonal Office of CPCB and the SPCB.	Complied, six monthly compliance reports are regularly submitted to MoEF, CPCB & MPPCB. The same also being sent by email. Last compliance report had submitted in Nov'16 for the period of April 2016 – September 2016 vide our letter no: **JNSTPP/ EC/ MoEF/ 2016-17/13** dated **November 25th, 2016**
xxxiii.	The environment statement of each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned state pollution control board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with status of compliance of EC conditions and shall also be sent to the respective Regional Offices of the Ministry by e-mail.	Compliance assured, Submitted Environmental Statement in Form- V to the State Pollution control Board authorities in the month of Sept'16 for the financial year 2015-16 vide letter no. JVPL/ES/2016-17 dated September 05th, 2016. It is forwarded to RO, MoEF by e-mail and put on the website of the company.
xxxiv.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated	Being complied, six monthly Environmental Clearance compliance status report is regularly submitted to MoEF, CPCB and SPCB. The same is sent by email also. Compliance status updated on Company's website.

	environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by email to the Regional Office, Ministry of Environment and Forests.	
xxxv.	Regional Office of the Ministry of Environment & Forests 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. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.	Will be complied with, Six monthly Environmental Clearance compliance status report is regularly submitted to MoEF, CPCB and SPCB. The same is sent by email also. Compliance status updated on Company's website. Display board already installed in main gate. Results are being displayed at Main gate of the plant.
xxxvi.	Separate funds shall be	➢ Complied, Environmental protection measures i.e., Dry low

	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 environmental protection measures shall not be diverted for other purposes and year -wise expenditure should be reported to the Ministry.	NOx burners, constructions of 275m stack with CEMS, Noise protection, effluent treatment, green belt development have been included in project capital cost & Suppression of fugitive emission, plantation in the periphery of the project area, constant monitoring of the pollution affects within the project area etc. ➢ Dedicated fund has already been allocated and being utilize for Environmental Protection measures. ➢ Environmental protection during Construction is being complied as per normal procedure. **Recurring expenditures for the period Oct.16 to March 17 is as below:** ✓ Operation cost in ESP - Rs 2,38,51,959 / - ✓ Operation Cost of ETP - Rs 55,07,730/- ✓ Operation Cost of STP - Rs 6,33,829/ - ✓ Green Belt Development - Rs 40,02,000/- ✓ Maintenance cost in CHP - Rs 57,19,932/ -
xxxvii.	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.	Complied, The project has achieved Financial Closure on **07/05/2010.**
xxxviii.	Full cooperation shall be extended to the Scientists/Officers from the Ministry /Regional Office of the Ministry at Bangalore/CPCB/SPCB who would be monitoring the compliance of environmental status.	Company shall cooperate and shall extend full support to the concerned authorities.
xxxix.	Bag house and dust suppression shall be installed in packing area to control the particulate and fugitive emissions.	➢ We have provided adequate air pollution control measures such as dust collection and extraction system (Cyclone followed by bag filters) in CGU to control fugitive dust emissions at various transfer points, raw mill handling like unloading, conveying, transporting and stacking, dry fog type dust suppression system in belt conveyor have been provided.

		➢ Cover sheds were provided for all raw material stock like Coal, Gypsum etc. ➢ All conveyers are covered by GI sheets. ➢ Closed clinker silo has been constructed to avoid fugitive dust emissions. ➢ Pneumatic system has provided for fly ash handling. ➢ Adequate green belt developed around the mill to control the fugitive emissions and to prevent the spreading of these emissions. ➢ Dust collectors and water spraying system are installed to control fugitive emissions Dust extraction systems provided to control the fugitive emissions. Internal roads are laid down and water sprinkling system is in place.

ANALYSIS REPORT OF HEAVY METALS IN ASH

Central Laboratory
M.P. Pollution Control Board, Bhopal [M.P.]
E/5, Arera Colony, Paryavaran Parisar, Bhopal – 462016

Test Report

Bill No./REF.No Nil dated 08/09/2016 Report No –84

Sample from : **M/S Jaypee Nigrie Super Thermal Power Plant, Teh.Sarai, Distt.Singrauli**

Sample Description : Coal Sample of Jaypee Nigrie Super Thermal Power Plant Teh.Sarai, Distt.Singrauli

Sample Container : Polythene Bags

Sample Volume : 100 gm

Collected on : -

Collected by : **M/S Jaypee Nigrie Super Thermal Power Plant, Teh.Sarai, Distt.Singrauli**

Received on : 08/09/2016

Date of Analysis : 08/09/2016

S.No.	Analyte Tested	Unit	Method No.	Result
1	Lead	mg/kg	APHA, 22nd Edition, 2012	2.0
2	Cadmium	mg/kg		1.0
3	Chromium	mg/kg		2.0
4	Arsenic	mg/kg		BDL
5	Calorific Value	Cal/g	-	5077.94

Remark:- BDL:- Below Detectable Limit

Authorized Signatory