

JNSTPP/ EC/ MoEF/ 2016-17/12
May 28th, 2016

The Director
Ministry of Environment Forest & CC
Regional Office
Govt. of India
Kendriya Paryavaran Bhawan
Link Road No. 3, Ravi Shankar Nagar
Bhopal - 462016

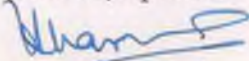
Sub: Submission of Six Monthly Environmental Compliance Report of Jaypee Nigrie Super Thermal Power Project (A unit of Jaiprakash Power Ventures Limited) at village Nigrie, Dist. Singrauli. M/s Jaiprakash Power Ventures Limited.

Sir,

Please find enclosed herewith the six monthly Environmental Compliance report in hard and soft copy for the period (October 2015–March 2016) 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) & 4.0 MTPA Cement Grinding Unit for your kind record please.

Thanking You

Yours Faithfully
For (Jaypee Nigrie Super Thermal Power Project)
(Unit 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.
Shankar Bhawan , 3rd Floor
North T.T nagar, Bhopal - (M.P.) 462016
- 2) Member Secretary
Madhya Pradesh Pollution Control Board - For information please.
Paryavaran Parisar, E - 5, Arera Colony
Bhopal (M.P.) 462016
- 3) Regional Officer - For information please.
D-3 Russian complex, Vindhya Nagar
NTPC , Vindhyanagar
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, Wagnaghat, P.O. Dumehar Bani, Kandaghat-173215, Distt. Solan (H.P.)
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Website : www.jalindia.co.in CIN : L40101HP1994PLC015483

Name of Project: Jaypee Nigrie Super Thermal Power Plant of 2x660 MW capacity and Jaypee Nigrie Cement Grinding Unit with 4.00 MTPA capacity

Clearance Letter No : J-13012/223/2007-IA.II dated 25.02.2010 and amendment dated 13.07.2012

Project Code - PCB ID - 26876

Period of Compliance Report : Oct. 2015 to March 2016

No.	Conditions	Status
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.	Details of R&R plan with time bound schedule was submitted to MoEF vide our letter no. - JPVL/JNSTPP/MOEF/2010 dated 20.01.2011. 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.	The hydro-geological study of the area is being carried out regularly by M/s. Hydro-Geosurvey Consultants Pvt. Ltd, Jodhpur and summary of report in respect of hydro-Geological studies carried out are being submitted regularly. Report of the Hydro-geological study carried out during 2014-15 is already submitted with EC compliance report of May 2015. As per the hydro-geological study carried out, there is no adverse impact on ground water quality & quantity. Hydro-geological study & Lean Flow of Gopad River study done in July 2015 .
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	A water reservoir for storage of water for 60 days at full load operation on the land having area of 80 ha has been constructed in two compartments. Minimum required environmental flow of 0.50 cusecs suggested by the Office of Chief Engineer (BODHI), Water Resources Department, Bhopal, Government of Madhya Pradesh is maintained in the River even in lean season.

	drainage in the region is not disturbed due to activities associated with operation of the plant.	It is ensured that natural drainage of area is not disturbed, the drainage scheme of the project is so designed to route adjoining area rain/ drainage water via plant storm water drainage system and finally to follow the path of natural drainage.
iv.	A stack of 275 m height (Bi-flue) shall be provided with continuous online monitoring equipments for SO ₂ , NO _x 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.	The 275 m height bi-flue chimney has been constructed. On-line monitoring equipment for SO ₂ , NO _x , Particulate Matter and Mercury emission has been installed & commissioned on the stack. The designed velocity of flue gas from stack is much higher (29 m/sec) against minimum requirement of 25 m/sec. Mercury emissions are also monitored continuously 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. Emission from the Grinding Unit shall not exceed 50 mg/Nm ³ .	Two stacks of 55m each with exit velocity not less than 10 m/s have been installed for Cement Grinding Unit. Thermax 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/Nm ³ at full load. Each Bag House has 780 & 1188 bags respectively. For Roller Press Stack the average concentration of PM is 20.90 mg/Nm ³ , maximum concentration is 30.15 mg/Nm ³ & the minimum concentration is 12.13 mg/Nm ³ . For Cement Mill Stack the average concentration of PM is 20.98 mg/Nm ³ , maximum concentration is 31.24 mg/Nm ³ & the minimum concentration is 8.80 mg/Nm ³ .
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.	Being complied. We have installed 34 no. of Bag Filters at various source points to control the fugitive emission as per CPCB guidelines. Regular monitoring of Fugitive Dust Concentrations in the Cement Grinding Unit is being carried and Record on the data is maintained.
vii.	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm ³ .	The High Efficiency ESP installed by M/s. BHEL (A Govt. of India Undertaking), with guaranteed emission level of less than 50 mg/Nm ³ with one field out of service at full load with worst coal. Each ESP has six passes and each pass, having 16 fields (i.e. total 96 fields) in the ESP. For Stack U-I maximum concentration of PM is 39.98 mg/Nm ³ , minimum concentration is 21.24 mg/Nm ³ & the average concentration is 30.61 mg/Nm ³ . For Stack U-II maximum concentration of PM is 46.05 mg/Nm ³ , minimum concentration is 29.17 mg/Nm ³ & the average concentration is 37.61 mg/Nm ³ .

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.	<p>Adequate dust extraction & dust suppression systems such as bag filters and water sprinkling system have been installed, in dusty area like coal handling, ash handling, transfer points and other dust generation areas of the plant.</p> <p>We have installed 7 nos. of bag filters at various point source emissions to control the fugitive emission.</p> <p><u>Fly ash Handling Plant:</u> Intermediate Silo – 02 No. Coarse Surge Hopper – 02 No.</p> <p><u>Coal Handling Plant:</u> Coal Bunker – 02 No. Crusher House – 01 No.</p>
ix	Utilization of 100 % Fly ash generated shall be made from 4 th year of operation of the plant. Status of implementation shall be reported to the regional Office of the Ministry from time to time.	<p>On full load of power generation, it requires to fire coal up to 5.7 Million Ton per annum with maximum ash content of 28.80% in the coal from the dedicated blocks, the annual fly ash generation shall be 1.177 MTPA.</p> <p>Total Ash Generation- 1.477 MTPA (Fly ash - 1.177 MTPA & Bottom Ash - 0.30 MTPA).</p> <ul style="list-style-type: none"> • Consumption in adjacent Cement Grinding Unit- 1.20 MTPA • Consumption of Fly ash in nearby Cement Plants (Jaypee Rewa, Bela & Sidhi) - 0.588 MTPA • 100% utilization of Fly ash in cement manufacturing since inception. <p><u>Fly Ash Generation & Usage details for the period Oct 2015 to March 2016 is as follows:</u></p> <p>Fly Ash generated : 516247.7 Metric Tonne Usage of Fly Ash : 461407.32 Metric Tonne</p>
x	Fly Ash shall be collected in dry form and storage facility (silos) shall be provided 100% fly ash utilization shall be ensured from 4 TH 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, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be	Fly ash is collected in dry form only. TPP discharges Fly ash into day Silo and from day Silo it is pneumatically conveyed to a large Fly ash storage Silo (20,000 MT) within Cement Grinding Unit. 100% utilization of Fly ash from since inception. Bottom ash is being carried in slurry form to the ash dyke situated inside the plant premises. Ash dyke is lined with fine sand then HDPE (1 mm thickness) lining and over that PCC. Bottom Ash will also be suitably utilized after drying to meet the stipulation of Fly ash Notification. Heavy metals i.e. As, Hg, Cr, Pb etc. are being monitored periodically.

	disposed off in low lying area.																																		
xi	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	The HDPE lining of 1.00 mm is provided to prevent any leaching. Ash Dyke embankment has been constructed with a layer of fine sand then HDPE lining 1 mm thickness & over that PCC to protect the possibility of any breach on embankment.																																	
xii	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.	Bottom ash is being carried in slurry form to the ash dyke situated inside the plant premises. Bottom Ash will also be suitably utilized after drying to meet the stipulation of Fly ash Notification.																																	
xiii	Closed cycle cooling system with natural draft cooling towers shall be provided. The Effluents shall be treated as per the prescribed norms.	<p>Cooling Water is in close circuit loop system. The Cooling Tower 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.</p> <p>Treated water Analysis results are:</p> <table border="1"> <thead> <tr> <th rowspan="2">Sr. No.</th> <th rowspan="2">Testing Parameters</th> <th colspan="3">Observed value</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>pH</td> <td>7.1</td> <td>7.6</td> <td>7.4</td> </tr> <tr> <td>2</td> <td>TSS (mg/l)</td> <td>38.0</td> <td>51.0</td> <td>44.9</td> </tr> <tr> <td>3</td> <td>TS (mg/l)</td> <td>421.0</td> <td>524.0</td> <td>482.7</td> </tr> <tr> <td>4</td> <td>COD (mg/l)</td> <td>36.0</td> <td>74.0</td> <td>56.2</td> </tr> <tr> <td>5</td> <td>BOD (mg/l)</td> <td>3.0</td> <td>8.0</td> <td>5.1</td> </tr> </tbody> </table>	Sr. No.	Testing Parameters	Observed value			Min	Max	Average	1	pH	7.1	7.6	7.4	2	TSS (mg/l)	38.0	51.0	44.9	3	TS (mg/l)	421.0	524.0	482.7	4	COD (mg/l)	36.0	74.0	56.2	5	BOD (mg/l)	3.0	8.0	5.1
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		The RO reject water is used in Dust Suppression in Coal Handling Plant areas.																												
xiv	<p>The treated effluents conforming to the prescribed standards only 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.</p>	<p>The treated effluent conforming to the prescribed standards is re-circulated and reused within the plant. There shall be no discharge outside the plant boundary except during monsoon. Arrangements have been made that effluent and storm water does not get mixed.</p> <p>The storm water drainage scheme within the plant has been so prepared that it does not mix with effluent. Based on Zero discharge principle the ETP system/Waste Water Treatment Plant (WWTP) comprising of collocation, clarification, filtration, ultra filtration (UF) and Reverse Osmosis (RO) system is installed and the treated water is recycled and used in system again.</p>																												
xv	<p>A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/plantation</p>	<p>STP of 1000 KLD has been installed & under operation. The treated sewage water is utilized for green belt/plantation. Solid residue of STP is used as manure. The treated effluent analysis results are as follows.</p> <table border="1"> <thead> <tr> <th rowspan="2">Sr. No.</th> <th rowspan="2">Testing Parameters</th> <th colspan="3">Observed value</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>pH</td> <td>7.5</td> <td>7.7</td> <td>7.6</td> </tr> <tr> <td>2</td> <td>BOD (mg/l)</td> <td>5.0</td> <td>16.0</td> <td>8.6</td> </tr> <tr> <td>3</td> <td>COD (mg/l)</td> <td>48.0</td> <td>77.4</td> <td>59.2</td> </tr> <tr> <td>4</td> <td>S.S (mg/l)</td> <td>6.0</td> <td>40.4</td> <td>23.3</td> </tr> </tbody> </table>	Sr. No.	Testing Parameters	Observed value			Min	Max	Average	1	pH	7.5	7.7	7.6	2	BOD (mg/l)	5.0	16.0	8.6	3	COD (mg/l)	48.0	77.4	59.2	4	S.S (mg/l)	6.0	40.4	23.3
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xvi	<p>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.</p>	<p>A scheme for Rain Water harvesting within the plant has been prepared and forwarded with compliance report of June,2013. The same is also sent to Central Ground Water Authority/Board for their approval before implementation. Also, a surface water body is constructed in the township area for rain water harvesting.</p>																												
xvii	<p>Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season.</p>	<p>Adequate safety measures including the water sprinkler (Jet) system and other provision are provided to minimize spontaneous fire in coal yard. The duly approved Onsite and Offsite Disaster Management Plan was already submitted vide letter No. 05/40/A-2/MHC/V1/12/6175 dated 04/10/2014</p>																												

	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.	
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	Storage facilities for auxiliary liquid fuel such as LDO and HFO have been installed in the plant area with approval of Department of Explosives, Nagpur, vide letter no. A/P/HQ/MP/15/3023 (P311713) and letter no. A/P/HQ/MP/15/3024 (P311712) dated 5.02.2013. While procuring LDO/HFO, it is checked that limit of sulphur content shall not be more than 0.5%. Disaster management plan is prepared to take care of any eventuality of accident during storage of oil.
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.	Detailed hydro-geological study for core zone as well as buffer zone has been carried out by M/s Hydro- Geo-Survey Consultant Pvt. Ltd., Jodhpur. Monitoring of 30 Key wells is studied on Pre and Post Monsoon basis. Eight Peizometers locations are identified at down and upstream of Ash ponds. Monitoring around the ash pond area is carried out particularly for heavy metals (Hg, Cr, As, Pb) and records are maintained and submitted to the Regional Office of Ministry. The data is compared with baseline data to ensure that ground water quality is not adversely affected due to project.
xx	Green belt consisting of 3 tiers of plantations of native species around plant and at least 100 m width shall be raised. Wherever 100 m width	Planted 44,950 saplings till date in open area of the project; further 10,000 saplings are ready for plantation in nursery to be planted within 6 Months. The premises shall have 33% of total area as a green belt in the next five years. A consultant M/s Nature Forever Organization has been appointed

	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%.	for the Development of green belt in the project, in a professional manner.																																																																																																																																																		
xxi	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase	Already complied during construction phase.																																																																																																																																																		
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 earplugs/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 record and for treatment of any hearing loss including shifting to non noisy /less noisy areas.	<p>The noise level from turbine is controlled suitably and noise level within work zone is maintained within the specified noise level. For people working in the high noise area, requisite personal protective equipment like earplugs/ear muffs are provided.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="8">SOURCE NOISE LEVELS AT VARIOUS LOCATIONS in dB(A)</th> </tr> <tr> <th>Month</th> <th>Time</th> <th>Turbine - I</th> <th>Turbine - II</th> <th>CT - I</th> <th>CT - II</th> <th>Boiler - I</th> <th>Boiler - II</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Oct-15</td> <td>Day</td> <td>71.2</td> <td>70.7</td> <td>74.2</td> <td>74.6</td> <td>77.8</td> <td>75.1</td> </tr> <tr> <td>Nt.</td> <td>79</td> <td>68.9</td> <td>75.3</td> <td>76.7</td> <td>75.6</td> <td>73.7</td> </tr> <tr> <td rowspan="2">Nov-15</td> <td>Day</td> <td>78.5</td> <td>76.5</td> <td>74.7</td> <td>74.4</td> <td>76.6</td> <td>77.1</td> </tr> <tr> <td>Nt.</td> <td>75.9</td> <td>75.6</td> <td>74.0</td> <td>68.5</td> <td>78.9</td> <td>78.9</td> </tr> <tr> <td rowspan="2">Dec-15</td> <td>Day</td> <td>75.9</td> <td>71.6</td> <td>74.6</td> <td>74.5</td> <td>78.8</td> <td>78.3</td> </tr> <tr> <td>Nt.</td> <td>72.3</td> <td>66.9</td> <td>67.6</td> <td>67.2</td> <td>69.7</td> <td>76.9</td> </tr> <tr> <td rowspan="2">Jan-16</td> <td>Day</td> <td>76.7</td> <td>71.9</td> <td>74.4</td> <td>74.7</td> <td>78.9</td> <td>75.4</td> </tr> <tr> <td>Nt.</td> <td>73.1</td> <td>75.7</td> <td>73.3</td> <td>75.3</td> <td>77.8</td> <td>77.2</td> </tr> <tr> <td rowspan="2">Feb-16</td> <td>Day</td> <td>70.4</td> <td>76.7</td> <td>74.1</td> <td>74.3</td> <td>75.2</td> <td>78.6</td> </tr> <tr> <td>Nt.</td> <td>68.0</td> <td>68.3</td> <td>74.1</td> <td>79.3</td> <td>67.2</td> <td>66.9</td> </tr> <tr> <td rowspan="2">Mar-16</td> <td>Day</td> <td>79.3</td> <td>77.3</td> <td>74.9</td> <td>74.4</td> <td>77.8</td> <td>77.2</td> </tr> <tr> <td>Nt.</td> <td>69.9</td> <td>73.9</td> <td>66.9</td> <td>68.2</td> <td>76.9</td> <td>71.8</td> </tr> </tbody> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="6">SOURCE NOISE LEVELS AT VARIOUS LOCATIONS</th> </tr> <tr> <th>Month</th> <th>Time</th> <th>Compressor house</th> <th>Raw water pump house</th> <th>Clarified Pump House</th> <th>CW Pump House</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Oct-15</td> <td>Day</td> <td>72.6</td> <td>75.7</td> <td>71.9</td> <td>74.6</td> </tr> <tr> <td>Nt.</td> <td>74.2</td> <td>67.1</td> <td>77.0</td> <td>69.4</td> </tr> <tr> <td rowspan="2">Nov-15</td> <td>Day</td> <td>70.3</td> <td>76.8</td> <td>74.3</td> <td>75.0</td> </tr> <tr> <td>Nt.</td> <td>79.2</td> <td>69.6</td> <td>77.9</td> <td>77.0</td> </tr> <tr> <td>Dec-15</td> <td>Day</td> <td>72.1</td> <td>76.0</td> <td>70.2</td> <td>76.8</td> </tr> </tbody> </table>	SOURCE NOISE LEVELS AT VARIOUS LOCATIONS in dB(A)								Month	Time	Turbine - I	Turbine - II	CT - I	CT - II	Boiler - I	Boiler - II	Oct-15	Day	71.2	70.7	74.2	74.6	77.8	75.1	Nt.	79	68.9	75.3	76.7	75.6	73.7	Nov-15	Day	78.5	76.5	74.7	74.4	76.6	77.1	Nt.	75.9	75.6	74.0	68.5	78.9	78.9	Dec-15	Day	75.9	71.6	74.6	74.5	78.8	78.3	Nt.	72.3	66.9	67.6	67.2	69.7	76.9	Jan-16	Day	76.7	71.9	74.4	74.7	78.9	75.4	Nt.	73.1	75.7	73.3	75.3	77.8	77.2	Feb-16	Day	70.4	76.7	74.1	74.3	75.2	78.6	Nt.	68.0	68.3	74.1	79.3	67.2	66.9	Mar-16	Day	79.3	77.3	74.9	74.4	77.8	77.2	Nt.	69.9	73.9	66.9	68.2	76.9	71.8	SOURCE NOISE LEVELS AT VARIOUS LOCATIONS						Month	Time	Compressor house	Raw water pump house	Clarified Pump House	CW Pump House	Oct-15	Day	72.6	75.7	71.9	74.6	Nt.	74.2	67.1	77.0	69.4	Nov-15	Day	70.3	76.8	74.3	75.0	Nt.	79.2	69.6	77.9	77.0	Dec-15	Day	72.1	76.0	70.2	76.8
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	Nt.	79	68.9	75.3	76.7	75.6	73.7																																																																																																																																													
Nov-15	Day	78.5	76.5	74.7	74.4	76.6	77.1																																																																																																																																													
	Nt.	75.9	75.6	74.0	68.5	78.9	78.9																																																																																																																																													
Dec-15	Day	75.9	71.6	74.6	74.5	78.8	78.3																																																																																																																																													
	Nt.	72.3	66.9	67.6	67.2	69.7	76.9																																																																																																																																													
Jan-16	Day	76.7	71.9	74.4	74.7	78.9	75.4																																																																																																																																													
	Nt.	73.1	75.7	73.3	75.3	77.8	77.2																																																																																																																																													
Feb-16	Day	70.4	76.7	74.1	74.3	75.2	78.6																																																																																																																																													
	Nt.	68.0	68.3	74.1	79.3	67.2	66.9																																																																																																																																													
Mar-16	Day	79.3	77.3	74.9	74.4	77.8	77.2																																																																																																																																													
	Nt.	69.9	73.9	66.9	68.2	76.9	71.8																																																																																																																																													
SOURCE NOISE LEVELS AT VARIOUS LOCATIONS																																																																																																																																																				
Month	Time	Compressor house	Raw water pump house	Clarified Pump House	CW Pump House																																																																																																																																															
Oct-15	Day	72.6	75.7	71.9	74.6																																																																																																																																															
	Nt.	74.2	67.1	77.0	69.4																																																																																																																																															
Nov-15	Day	70.3	76.8	74.3	75.0																																																																																																																																															
	Nt.	79.2	69.6	77.9	77.0																																																																																																																																															
Dec-15	Day	72.1	76.0	70.2	76.8																																																																																																																																															

			Nt.	69.2	68.0	71.2	72.1
		Jan-16	Day	67.9	76.1	72.7	76.9
			Nt.	73.0	72.0	68.6	76.4
		Feb-16	Day	66.7	76.0	74.4	75.4
			Nt.	76.3	74.9	69.7	67.9
		Mar-16	Day	69.2	77.4	74.7	75.4
			Nt.	69.9	77.3	77.4	69.0
xxiii	Regular monitoring of Ground level concentration of SO ₂ , NO _x . 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.	Regular monitoring of ground level concentration of SO ₂ , NO _x and RSPM is being carried out. All necessary mitigation measures are taken.					
		LOCATION : Near STP - Colony area					
			PM_{2.5} (µg/m ³)	PM₁₀ (µg/m ³)	SO₂ (µg/m ³)	NO_x (µg/m ³)	CO (µg/m ³)
		Minimum	17.50	39.01	5.49	10.95	111.89
		Maximum	37.00	62.50	17.77	21.85	221.78
		Average	27.93	48.31	11.67	15.51	169.49
		LOCATION : Near H2 Gas cylinder shed					
			PM_{2.5} (µg/m ³)	PM₁₀ (µg/m ³)	SO₂ (µg/m ³)	NO_x (µg/m ³)	CO (µg/m ³)
		Minimum	18.50	40.10	5.50	11.81	83.92
		Maximum	38.00	60.00	19.07	28.75	227.78
		Average	27.11	48.89	12.26	16.51	171.47
		LOCATION : Near Watch tower 22 (Grinding Unit)					
			PM_{2.5} (µg/m ³)	PM₁₀ (µg/m ³)	SO₂ (µg/m ³)	NO_x (µg/m ³)	CO (µg/m ³)
		Minimum	17.50	35.00	3.90	8.62	107.39
		Maximum	35.50	54.23	17.75	23.20	215.09
		Average	27.38	46.69	11.57	14.70	163.36
		LOCATION : Near fuel storage tank					
			PM_{2.5} (µg/m ³)	PM₁₀ (µg/m ³)	SO₂ (µg/m ³)	NO_x (µg/m ³)	CO (µg/m ³)

		Minimum	19.50	34.20	7.20	10.90	94.41
		Maximum	36.00	56.00	18.14	22.80	233.50
		Average	28.46	47.53	11.69	15.44	158.27
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.	Detailed R & R plan already submitted vide letter no. - JPVL/JNSTPP/MOEF/2010 dated 20.01.2011. 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.	Details of the CSR activities to be undertaken have been submitted to MOEF 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. Total expenditure incurred is RS. 1,10,39,974.00/-					
xxvi	As part of CSR programme the company 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	<p>Sardar Patel Uchchar 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.</p> <p>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.</p> <p>A School is already functional and is operating for about one and half year.</p> <p>A 10 bed hospital equipped with diagnostic and surgical facilities is functional for medical check-up and treatment to the local habitats for the surrounding 10 villages. Almost 250 to 300 people availing the Medical facilities daily.</p>					

	<p>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</p>	<p>A mobile medical van is already functioning providing free diagnostics & treatment under the guidance of qualified and experienced doctors.</p> <p>Other CSR activities include Stipend for secondary school students, Paying tribute to Old Age Persons, Vocational Training for students, Drinking Water facility to local habitants, Veterinary Service within the adopted villages.</p>
xxvii	<p>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.</p>	<p>Construction phase has been completed, hence not applicable.</p>
xxviii	<p>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 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</p>	<p>Already complied. Grant of EC was advertised in two local news papers in vernacular language.</p>

	may also be seen as Website of the Ministry of Environment and Forests at http://envfor.nic.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.	Already complied. The copy of EC was sent to all the concerned departments and local panchayat and acknowledgement was taken.
xxx	A separate Environment Managements Cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Environmental Management Cell, with full fledged laboratory has been setup and working. Environment cell has been strengthen by appointing senior executives under Director in charge (DIC) for implementation of the stipulated environmental safeguards.
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 criteria pollutant levels namely; SPM, RSPM, SO ₂ , NO _x (ambient levels as well as stack) shall be displayed as a convenient location near the main gate of	Being complied.

	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.	Six monthly compliance reports on the status of the implementation are submitted regularly. Last report was submitted vide letter no. JNSTPP/ EC/ MoEF/ 2015-16 dated Nov 27, 2015
xxxiii	The environment statement of each financial year ending 31 st 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.	Environment Statement for the year 2014-15 is submitted vide letter no. JVPL/EC/ES/2015-16 dated September 22 nd , 2015
xxxiv	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution	Six monthly compliance reports on the status of the implementation are submitted regularly. Last report was submitted vide letter no. JNSTPP/ EC/ MoEF/ 2015-16 dated Nov 27, 2015 and sent by e-mail to RO-MoEF.

	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 update the same from time to time at least six monthly basis. Criteria pollutants levels including NO _x (from stack & ambient air) shall be displayed at the main gate of the power plant.	Noted & Agreed.
xxxvi.	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise	Funds for recurring & non- recurring activities have been earmarked for environment protection measures. The money spent for Major pollution control devices and Environment protection measures including recurring expenditures for the period October'15- March'16 is as below.

	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.	<ul style="list-style-type: none"> ✓ O&M cost Of Bag Houses & Bag Filters in CGU – Rs 4,30,140/- ✓ Operation Cost of STP – Rs 6,20,850/- ✓ Maintenance Cost of WWTP – Rs 1,20,00,000/- ✓ Operation cost in ESP - Rs 2,19,09,445 /- ✓ Operation cost in CHP - Rs 31,18,341/- ✓ Green Belt Development – Rs 6,12,000/-
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.	Unit – I Commissioned on 03.09.2014, Unit –II Commissioned on 24.03.2015.
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.	Full co-operation will be extended to the visiting officials of MoEF, CPCB and MPPCB.
xxxix	Bag house and dust suppression shall be installed in packing area to control the particulate and fugitive emissions.	Two nos. of Bag Houses installed to cement mills(Ball & Roll Press Mill) with guaranteed emission level of <50 mg/Nm ³ at full load. Each Bag House has 780 & 1188 bags respectively. We have installed 34 no. of Bag Filters at various source points in Cement Grinding Unit to control the fugitive emission.