SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE

4× 60 MW CAPTIVE THERMAL POWER PLANT

& 1.0 MTPA CEMENT GRINDING UNIT

REF. LETTER NO.: J -13012/106/ 2009-IA II (T) dated 18.12.2012

PERIOD: OCTOBER, 2014 – MARCH, 2015

Submitted By

JAYPEE CHURK INDUSTRIAL COMPLEX

(A UNIT OF JAIPRAKASH ASSOCIATES LIMITED)

VILLAGE: CHURK, TEHSIL: ROBERTSGANJ,

SONEBHADRA DISTRICT (UP)

JAYPEE CHURK INDUSTRIAL COMPLEX
(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)

Status of conditions stipulated in the Environment Clearance for JCIC, Churk for the period October 2014 to March 2015.

Ref: Environment Clearance vide letter no. J -13012/106/ 2009-IA II (T) dated 18.12.2012.

A. Specific Conditions

S. No.	Conditions	Status of Compliance
1	Vision document specifying prospective plan for the site shall be formulated and submitted to regional office of ministry within 6 months.	Environment vision document has already been submitted to the Regional office, MoEF vide our letter no. JCIC/MoEF/2013/01 dated 14.08. 2013.
2	Since the project proponent had started construction activity before obtaining Environment Clearance, the Uttar Pradesh Pollution Control Board has filed a Petition under section 15 of the Environment Protection Act,1986 in the Court of Chief Judicial Magistrate, Sonebhadra on 27/09/12 under Misc. Case No. 761/2012. The Company shall comply with the orders passed by the Court of Chief Judicial Magistrate, Sonebhadra.	The Case no. 761/2012 filed by Regional Office, UPPCB in the Court of Chief Judicial Magistrate, Sonebhadra is under trial. The orders of the Hon'ble court shall be complied with, as and when issued.
3	Environment Clearance is subject to obtaining prior clearance from the National Board of Wild Life. The environment clearance granted does not necessarily imply that wildlife clearance shall be granted to the project. The investment made in the project, if any, based on environmental clearance granted in anticipation of the clearance from wildlife angle shall entirely be at the cost and risk of the project proponent and Ministry of Environment Forests shall not be responsible in this regard in any manner.	The matter was considered in the Standing Committee of the National Board of Wild Life and referred to Impact assessment Division/ Forest Conservation Division in light of the report of WLI on the subject. Kindly Refer to the minutes of the meeting communicated to the Principal Secretary (Forest), Govt. of UP, Vide letter no. 3334 PSF/2092 dated 16.07.2012. These minutes were considered in the 58th Expert Appraisal Committee of EIA on-8/9.10.2012 and Environment Clearance was granted after considering all aspects, facts & recommendations of the Standing Committee of the National Board of Wildlife.
4	Wildlife Conservation Plan approved by the Office of the Competent Authority shall be implemented before commissioning of the plant. Status of implementation shall be submitted to Regional Office of the Ministry.	Wildlife Conservation Plan had been prepared by Dr. Jamal A. Khan, Principal Investigator, Department of Wild Life Science, Aligarh Muslim University. The report has already submitted to the office of the Chief Wildlife Warden, Govt. of UP. The Wild Life Conservation plan has been accepted by Principle

		Chief Conservator of Forests, Wildlife Uttar Pradesh vide their letter No. 1210/26-11 (JP) Lucknow, dated October 10, 2011. Copy of the letter is attached as **Annexure-1(a).** Implementation of the plan is required to be undertaken by State Forest Department through the Divisional Forest Officer of Kaimoor Wildlife Sanctuary and to be reviewed by committee appointed by State/Central Govt. Funds will be provided by Jaiprakash Associates Limited and additional funding shall be sourced through schemes such as MNREGA. Request letter for formation of monitoring committee is already submitted to the Chief Wild Life Warden, Govt. of Uttar Pradesh Vide letter no. DCF/MoEF/2013 dated 12/08/2013. Copy is attached as **Annexure-1(b).** Further in this context the Chief Wildlife Warden, Lucknow (UP) has requested to the Director, MoEF, New Delhi for nomination of the member from MoEF for Monitoring Committee of Churk Wildlife Conservation Plan. Copy of the letter is attached as **Annexure- 1(c)**
5	Harnessing solar power within the premises of the plant particularly at available roof tops shall be undertaken and status of implementation shall be submitted periodically to the Regional Office of the Ministry.	Offers have been received from various vendors for installation of Solar Energy systems at JCIC. Few solar street lights have been installed for trial purpose. Further order is to be placed for Solar Street Lights. Status of implementation shall be submitted to the Regional office, MoEF.
6	Coal transportation to plant site shall be undertaken by rail and no road transportation shall be permitted.	Coal transportation to plant site shall be undertaken by rail. Plant layout showing railway siding has already been submitted to the regional office of the MoEF with previous compliance reports.
7	Sulphur and ash contents in coal to be used in the project shall not exceed 0.6 % and 8% respectively at any given time. The Gross Calorific Value of the coal should not be less than 5300 Kcal/ Kg. In case of variation of coal quality at any point of time, fresh reference shall be made to the ministry for suitable amendments to environmental clearance condition wherever necessary.	Imported coal is being used in power plant. Sulphur & ash content in coal is below 0.6% & 8% respectively.

8	Stack height of 125 m shall be provided with continuous online monitoring equipments for SO_x, NO_x and Particulate Matter .Exit velocity of flue gases shall not be less than 22m/sec. Mercury emissions from stack shall also be monitored on periodic basis.	Two Stacks of 130 m height have been constructed. Opacity meters to monitor particulate matter attached with the stacks. Online Continuous Emission Monitoring System (CEMS) for SO_x and NO_x has been procured & shall be installed by June 30, 2015. Exit velocity of flue gases 22 m/s is being maintained. Monitoring of Mercury emission has been done by MoEF approved laboratory. Report is awaited.
9	Space provision for installation of FGD shall be made.	Space has been provided for installation of FGD unit in the plant if reqried.
10	Action Plan along with mitigation and management of fugitive emissions in and around coal handling plants and implementation schedule and monitoring mechanism for development of a thick three tier green belt all around plant boundary except in areas not feasible, shall be submitted to the RO of the Ministry.	Action plan for control of fugitive emissions & detailed proposal for green belt development has already been submitted to Regional office, MoEF vide our letter no. JCIC/MoEF/2013/01 dated 14.08.2013. Green belt development is under progress. Greenbelt development status report is attached as **Annexure-2.**
11	The Company shall install online monitoring in the major stacks to monitor the particulate emissions and monitoring Ambient Air Quality at the site. One monitoring station shall be installed adjoining the Wildlife Sanctuary to access the impacts.	Opacity meters for Continuous Monitoring of Particulate Matter are already installed and Continuous Emission Monitoring System (CEMS) for SO_x and NO_x has been procured & under installation and completed by June 30, 2015. Two nos. of CAAQMS are under installation including one CAAQMS adjoining wild life sanctuary. The location of CAAQMS has been identified in consultation with Regional office, UPPCB Robertsganj.
12	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission from the proposed plant does not exceed 50 mg/Nm3	High Efficiency Electrostatic Precipitators (ESPs) have been installed. The ESPs are designed to achieve particulate emission below 50 mg/Nm^3. Monitoring report of Particulate matter for the period of October, 2014 to March, 2015 is attached as **Annexure-3.**
13	Bag filters shall be installed in Cement Grinding Unit and dust suppression system.	Bag Filters will be installed with Cement Grinding Unit.

14	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 vulnerable dusty areas shall be provided.	Dust extraction systems like bag filters & water spray system in coal handling, ash handling, transfer towers & other vulnerable area have been provided. State of the art Dry Fog System has also been installed at wagon tippler section. List of bag filter & dust suppression system attached as **Annexure-4**
15	An amount of Rs. 223.55 crores is earmarked for pollution control equipment/measures as committed by the project proponent. Additionally an amount of Rs. 7.0 crores per annum shall be earmarked for maintenance of pollution control equipment.	Proposed break up and present status of expenditures on Environment Protection Measures is attached as **Annexure-5**
16	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 to the Ministry from time to time.	100 % fly ash generated from plant is being utilized in our cement manufacturing units for manufacturing PPC cement.
17	No mine void filling or filling up of low lying areas with fly ash shall be undertaken.	Fly ash will not be used for mine void filling or filling up of low lying areas.
18	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.	There is no provision of construction of ash dyke/pond. The entire fly ash generated from the plant is being conveying pneumatically from ESP hopper to ash silos in dry form for storage prior to its use.
19	Fugitive Emission of fly ash shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided in consultation with the local Panchayat.	Fly ash is being conveying pneumatically from ESP hopper to ash silos in dry form for storage prior to its use. In built control mechanism has been installed at fly ash handling system to control fugitive emissions. Therefore, no impact of fly ash will be on agricultural or non-agricultural land.
20	A long term study of radio activity and heavy metals contents on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place.	Order has been placed to the M/s Shriram Institute for Industrial Research for radioactivity test, report is awaited. Order for heavy metal testing in Coal & Fly ash has also placed to M/s SIMA Labs, New Delhi.

21	Continuous monitoring of heavy metals in and around the existing ash pond area shall be carried out by reputed institute like IIT, Chennai.	There is no provision for construction of ash dyke/ pond as entire fly ash is being collected pneumatically in fly ash silos & transported in covered trucks to our cement manufacturing units.
22	Air cooled condenser shall be installed.	Air cooled condensers has been installed.
23	No water bodies including natural drainage system in the area shall be disturbed due to activities associated with setting up/ operation of the power plant.	No natural water bodies and drainage passes through the plant premises.
24	COC of at least 5.0 shall be adopted.	COC > 5 is being adopted.
25	A well designed rain water harvesting system shall be put in place which shall comprise of rain water collection from the built up and open area in plant premises. Action plan and road map for implementation shall be submitted to the Regional Office of Ministry.	We are in the process of rainwater harvesting implementation in plant & township at 3 locations. Status of implementation for the same shall be submitted to the Regional office, of the Ministry.
26	Hydrogeology of area shall be reviewed annually from an institute/ organization of repute to asses impact of surface water and ground regime (especially around ash dyke). In case any deterioration of repute to assess impact of surface water and ground regime (especially around ash dyke). In case any deteriotion is observed specific mitigation measures shall be undertaken and reports/data of water quality monitored regularly and maintained shall be submitted to Regional Office of the Ministry.	There is no provision for construction of ash dyke/pond. The entire fly ash is being conveying pneumatically from ESP hopper to ash silos in dry form for storage prior to its use. Since there is no likelihood of ash coming in touch with the ground water, no deterioration of ground & surface water regime is expected. However ground water quality monitoring in core & buffer zone is being done by third party. Ground water analysis report is attached as **Annexure-6**
27	Waste water generated from the plant shall be treated before discharge to comply limits prescribed by SPCB/CPCB.	Effluent Treatment plant and Sewage treatment plant have been installed. STP and ETP treated water qualifying the discharge limits of SPCB/CPCB & is fully re-used in horticultural, dust suppression systems, ash quenching etc. Analysis report of STP & ETP treated water is attached as **annexure- 7 (a) & (b)**

28	Green Belt consisting of three tiers of plantations of native species around plant and at least 50m width shall be raised. Tree density shall be 2500 per ha. with survival rate not less than 80%.	Proposal for green belt development has already been submitted to Regional office, MoEF vide our letter no. JCIC/MoEF/2013/01 dated 14.08.2013. Green belt development is under progress. Green belt development activities on full fledged scale shall be carried out after the completion of construction and commissioning activities. Please refer Annexur-2 for detailed greenbelt development status report**.**
29	The project proponent shall also adequately contribute in the development of neighboring villages. Special package with implementation schedule for free portable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	To address the prime concern on development of neighboring villages, Jaypee Group has undertaken initiatives such on Education, Health, Women Empowerment, Community Development and drinking water supply to the villagers. Under these schemes a total 12 no. of villages have been covered with population of 45,339. Jay Jyoti Inter college at Churk and Ghurma are delivering quality education to the children's from under privileged section of the society. To provide Health and Medical services to the villagers a hospital is running at site having pathology lab, mobile medical van & ambulance. Medicines also providing free of cost to the villagers.
30	An amount of Rs. 5.0 Crores be earmarked as one time capital cost for CSR programme. Subsequently a recurring expenditure of Rs. 1.0 Crores per annum till the life of the plant 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 has been earmarked for CSR activities. CSR activities are being carried out by Jaiprakash Sewa Sansthan. CSR expenditure report is attached as **Annexure-8**
31	Additionally as committed by the project proponent Rs 3.0 Crores shall be earmarked for development of ITI at Dalla for imparting training for local people in craft for employment. An amount of Rs 7.0 Crore shall be earmarked for development of green belt and Rs 80 Lakhs per annum shall be kept as recurring expenses for green belt as committed.	ITI centre has been setup at Dalla & imparting quality education & training on various courses & modules for local peoples. Work on greenbelt development is under progress and in house nursery has been set up for development of saplings. Native species are being preferred for greenbelt development. Please refer **Annexure-2 for** greenbelt development report**.**

32	CSR scheme should address Public Hearing issues and shall be undertaken based on need based assessment in and around the villages within 5.0 km of the site and in constant consultation with the village panchayat and the District Administration. As part of CSR prior identification of local employable youth and eventual employment in the project after imparting relevant training shall be also undertaken.	Sociology department of BHU has been selected to carry out social audit along with need based assessment study in and around 5.0 km of the site & in consultation with the village panchayat. CSR activities are being undertaken & also addressing the public hearing issues mainly Health Services and Education. Vocational trainings for local employable youths have been provided at our ITI Dalla.
33	It shall be ensured that in-built monitoring mechanism for the schemes identified is in place and annual social audit shall be got done from the nearest govt. institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from time to time.	Social audit at JCIC is to be carried out by Sociology Department of Banaras Hindu University & Study report will be submitted to the regional office of MoEF on completion.
34	An Environment Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and qualification. It shall be ensured that the head of the Cell shall directly report to the Head of the Organization.	A separate Environmental Management cell has been set up with suitable qualified & experienced officer having appropriate experience in environment management who reports directly to the Head of the Organization. Organizational Chart of Env. Cell is attached as Annexure-9

B. General Conditions

S. No.	Conditions	Compliance Status
1	The treated effluents conforming to the prescribed standards only shall be re-circulated and reuse within the plant. Arrangements shall be made that effluents and storm water do not get mixed.	ETP treated water conforming to the prescribed standard is reused in sprinkling to suppress dust on roads & coal handling plant. No effluent is getting mixed with storm water. Please refer **annexure-7 (a)** for treated effluent analysis report.

2	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.	Sewage Treatment Plant (STP) of 300 KLD has been installed and treated water is reused in plantation/green belt development within the plant premises. Please refer **annexure-7 (b)** for analysis report of STP treated water.
3	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 regional office of the ministry.	Safety measures are being taken at coal handling plant. Adequate Fire Fighting Equipment i.e. Fire Hydrant & Fire Extinguishers have been provided in the coal handling plant. Fire & Safety department made available with 3 nos. fire fighting tenders along with all necessary control equipment. Copy of the measures & layout has already been submitted to the Regional Office of the Ministry.
4	Storage facilities for auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area in consultation with 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 fuel.	Approval/license for design of installations & storage of LDO/HFO/LSHS has been taken from PESO, Nagpur. LDO/HFO/LSHS properly stored in dedicated area. It is ensured that sulphur content is less than 0.5% in liquid fuel. An Onsite Emergency Plan including disaster management plan has been prepared & implemented covering all the eventualities in case of accident due to storage of oil.
5	First Aid and Sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Infrastructure facilities such as first aid centers, toilets and STPs have been provided.
6	Noise levels emanating from turbines shall be controlled such that the noise in the work zone shall be limited to 85 dB (A) from source. For people working in the high noise area, requisite personal protective equipment like earplugs/earmuffs 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 action has been taken to maintain noise level within 85dB (A). Earplugs & Earmuffs are being provided to the employees working in noise generating areas. Regular noise level monitoring is being carried out inside the plant & monitoring values are well within the prescribed limits. Monitoring report attached as **Annexure- 10** Audiometric test will be carried out during pre-employment and after employment as per Factory Act.

7	Regular Monitoring of ambient air ground level concentration of SO_2, NO_x, PM2.5 & PM10 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 monitoring stations and frequency of monitoring shall be submitted to the Regional office of Ministry. The data shall also be put on the website of the company.	Regular ambient air monitoring is being carried out in-house as well as MoEF approved laboratory & records are maintained. Monitoring reports are updated on the company's website & the same is attached as **Annexure- 11**
8	Provision shall be made for housing of construction labour (as applicable) 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 structures to be removed after the completion of project.	Necessary infrastructure for construction labour at project site had been provided i.e. temporary housing, mobile toilets, safe drinking water, free medical facility etc.
9	The project proponent shall advertise in at least two local news papers widely circulated in the region around the project, on 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 environment 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	Environment Clearance information notice published in two news paper in Hindi and English. Copy of the same has already been submitted to the MoEF with previous compliance reports.
10	A copy of the clearance letter shall be sent by the proponent to concerned panchayat, Zila Parisad/ Municipal Corporation, urban local body and the local NGO, 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 clearance has been submitted to District Magistrate office and also uploaded on the company website.

11	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of Mo EF, the respective zonal office of CPCB and SPCB. The criteria pollutant levels namely; SPM, RSPM (PM 2.5 & PM 10), SO_2, NO_X (ambient levels as well as stack emissions) shall be displayed at a convenient location near the main gate of the company in the public domain.	Six monthly compliance report is being regularly submitted to MoEF, CPCB & SPCB and the same is also uploaded on Company's website along with environmental monitoring data. Regular monitoring of PM10, PM2.5, SO_2, NO_X and stack emissions is being carried out and records are maintained. Monitoring data is uploaded on the company's website & also displayed at the main gate regularly.
12	The environment statement for 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 the status of compliance of environmental clearance conditions and shall also be sent to the respective regional offices of the ministry by e-mail.	Environment statement has already been submitted to UPPCB vide letter no.-JCIC/ENV/17/2014 dated 24/09/2014 & it is also uploaded on company's website.
13	The project proponent shall submit six monthly reports on the status of the implementation of stipulated environmental safeguards to the Ministry of Environment and Forest, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the regional office, Ministry of Environment and Forests.	Six monthly compliance report is being submitted to MoEF, CPCB & UPPCB on regular basis. Last compliance report submitted on November 28, 2014 vide letter No. JCIC/ENV/22/2014 for the period April, 2014 to September, 2014. It is also uploaded on the company's website: *http://www.jalindia.com/.*

14	Regional office of Ministry of Environment & Forests will monitor the implementation of the stipulated conditions. A complete set of documents including Environment 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 upload the compliance status in the website and up-date the same from time to time at least six-monthly basis. Criteria pollutants levels including NO_X (from stack and ambient air) shall be displayed at the main gate of power plant.	Noted & Agreed. Six monthly compliance report is being regularly submitted to MoEF, CPCB & SPCB and the same is also uploaded on Company's website. Regular monitoring of PM10, PM2.5, SO_2, NO_X and stack emissions is being carried out and records are maintained. Monitoring results are displayed at the main gate.
15	Separate funds shall be allocated for implementation of environmental protection measures along with item wise break-up. This cost shall be included as part of project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year wise expenditure should be reported to the Ministry.	Separate funds for implementation of environmental protection measures have been allocated as part of the project cost. Year wise expenditure details are being submitted regularly to the ministry. Please refer annexure-4 for expenditure incurred on environment protection.
16	The project authorities shall inform the Regional Office as well as the Ministry regarding the date of financial closure and financial approval of the project by the project by the Concerned authorities and the dates of start of land development work and commissioning of plant.	Noted and Agreed.
17	Full cooperation shall be extended to the Scientists/Officers from the Ministry/ Regional Office of the ministry/ CPCB/SPCB who could be monitoring the compliance of environmental status.	Noted & agreed.

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Annexure-3

STACK MONITORING REPORT (3 X 60 MW TPP) Period: November 2014 - March 2015						
S. No.	**Name of the Unit**	**Nov-14**	**Dec-14**	**Jan-15**	**Feb-15**	**Mar-15**
1	Stack-1 attached with ESP of Boiler-1	27.88	27.46	27.91	28.77	*-
2	Stack-1 attached with ESP of Boiler-2	*-	*-	29.35	26.00	29.51
3	Stack-2 attached with ESP of Boiler-3	*-	*-	*-	*-	*-

Note: * Boiler 1, 2 & 3 were not in operation

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Annexure-4

Details of Bag Filters, Dust Suppression System & ESP at JCIC Churk				
S. No.	Location	Description	Capacity (M^3/HR)	Emission level
1	Wagon Tipper	Dry Fog System	Dust suppression system	
2	Coal Crusher	L11-BF 1	15000	50 mg/Nm^3
3	Transfer Tower 1	L11-BF 2	9000	50 mg/Nm^3
4	Transfer Tower 2	L11-BF 1	6500	50 mg/Nm^3
5	Transfer Tower 3	L31-BF 1	9000	50 mg/Nm^3
6	Transfer Tower 4	L11-BF 4	6500	50 mg/Nm^3
7	Transfer Tower 5	L41-BF 3	9000	50 mg/Nm^3
8	Transfer Tower 6	L11-BF 5	6500	50 mg/Nm^3
9	Transfer Tower 9	L91-BF 1	6500	50 mg/Nm^3
10	Transfer Tower 10	L91-BF 2	6500	50 mg/Nm^3
11&12	Primary Screen House	L51-BF 1&2	2X 40000	50 mg/Nm^3
13&14	Secondary Screen House	L51-BF 3&4	2 x40000	50 mg/Nm^3
15	Bunker House 1	L91-BF 3	20000	50 mg/Nm^3
16	Bunker House 2	L91-BF 4	20000	50 mg/Nm^3
17	Bunker House 3	L91-BF 5	20000	50 mg/Nm^3
18	Coal silo top	L31-BF 2	8000	50 mg/Nm^3
19	Coal silo extraction	L31-BF 3	8000	50 mg/Nm^3
20&21	Silo Top	-	20000	50 mg/Nm^3
22	Silo Extraction	-	5000	50 mg/Nm^3
23	Fly ash silo 750 T	-	11000	50 mg/Nm^3
24	Boiler-1	-	468000	50 mg/Nm^3
25	Boiler-2	-	468000	50 mg/Nm^3
26	Boiler-3	-	468000	50 mg/Nm^3

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Annexure-5

Environment Expenditure Report
COST PROVISION FOR ENVIRONMENTAL MEASURES

S. No	Activity/Category	Budget (Rs. in Crores)	Recurring Cost (Rs in Crores)
1	Electrostatic Precipitators (ESP)	88.00	1.60
2	Stacks	6.00	0.10
3	Effluent Treatment Plant (ETP) & Sewage Collection, Treatment and Disposal (STP)	8.00	0.60
4	Dust Suppression system, emission control and close stock piles	78.00	4.50
5	Control of Fire & Explosion Hazards	6.50	0.30
6	Noise abatement	16.00	0.40
7	Environmental Lab equipment and on line Monitoring equipments	14.00	1.00
8	Greenbelt	7.05	0.80
	Total	223.55	7.90

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Annexure-7 (a)

Analysis Report of ETP Treated Water					
S. No.	**Parameter**	**Discharge Limit as per UPPCB (in mg/l except pH)**	**Jan-15**	**Feb-15**	**Mar-15**
1	pH	6.5 to 8.5	7.12	7.32	7.85
2	Total Suspended Solid (TSS)	100	52	44	46
3	Biochemical Oxygen Demand (20ºC, 5 days)	30	17.25	14.11	13.25
4	Chemical Oxygen Demand	250	38.76	33.52	27.85
5	Oil & Grease	10	<1.0	<1.0	<1.0

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Annexure-7 (b)

Analysis Report of STP Treated Water

S. No.	Parameter	Discharge Limit as per UPPCB (in mg/l except pH)	Jan-15	Feb-15	Mar-15
1	pH	5.5 to 9.0	7.50	7.80	7.64
2	Total Suspended Solid (TSS)	100	50.0	48.0	54.0
3	Biochemical Oxygen Demand (20ºC, 5 days)	30	26.8	24.2	26.5
4	Chemical Oxygen Demand	250	58.6	52.4	57.8
5	Oil & Grease	10	<1.0	<1.0	<1.0

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Annexure-10

Noise Level Monitoring Data

Period: October 2014 - March 2015

S. No.	Monitoring Location	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Ambient Noise Level							
1	Near Dispatch Gate	60.1	58.6	59.2	55.0	60.0	61.3
2	Near Store	58.7	59.2	58.0	53.0	64.0	58.2
3	Main Gate	60.0	58.0	60.0	59.0	63.0	60.4
4	Near Rear gate	57.0	59.0	59.0	53.0	60.0	59.4
Workplace Noise Level							
5	Outside of Compressor House	82.8	82.6	82.6	82.4	82.5	82.8
6	Turbine Floor	83.0	82.8	83.1	83.1	83.4	83.7
7	Boiler Area	82.3	82.5	82.6	82.8	82.7	82.6
8	Boiler Feed Pump Area	82.8	83	82.8	82.6	82.8	82.6
9	DM Plant	74.8	75.2	75.9	76.4	75.4	74.9
10	Coal Handling Plant	75.4	77.6	78.2	79	78.8	79

Remark: Limit for work environment is 85 dB(A)

JAYPEE CHURK INDUSTRIAL COMPLEX
(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)

Annexure-11

HALF YEARLY AMBIENT AIR QUALITY MONITORING REPORT									
Period : October 2014 - March 2015									
Month	**Particulars**	**Location- Near Main Gate**				**Location- Near CPP**			
		PM10	**PM2.5**	**SO_2**	**NO_X**	**PM10**	**PM2.5**	**SO_2**	**NO_X**
		($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
Oct-14	Monthly Avergae	64.59	25.28	9.47	11.61	67.96	26.16	9.76	11.89
Nov-14		62.35	25.61	9.17	11.61	59.07	25.02	9.65	12.17
Dec-14		61.97	22.43	11.36	13.84	61.97	22.43	11.36	13.84
Jan-15		62.33	24.46	10.26	14.57	64.56	25.40	11.13	14.33
Feb-15		62.91	24.15	13.89	16.18	64.85	26.67	11.32	12.98
Mar-15		61.71	19.87	11.37	14.07	62.55	20.63	11.64	14.15
Month	**Particulars**	**Location- Near Rear Gate**				**Location- Near Dispatch Gate**			
		PM10	**PM2.5**	**SO_2**	**NO_X**	**PM10**	**PM2.5**	**SO_2**	**NO_X**
		($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)	($\mu g/m^3$)
Oct-14	Monthly Avergae	66.31	26.03	9.62	11.96	67.50	26.50	9.75	12.12
Nov-14		61.39	26.18	9.8	11.63	59.12	26.18	9.8	11.63
Dec-14		60.16	26.70	9.88	11.87	58.19	25.45	10.12	11.29
Jan-15		63.61	23.97	11.19	14.39	65.57	24.43	11.29	14.49
Feb-15		64.06	24.33	12.31	14.2	66.15	24.24	13.09	14.07
Mar-15		58.24	18.98	10.58	12.94	62.84	21.33	11.79	12.96