



ACB (INDIA) LIMITED

30MW Chakabura Power Plant, P.O.-Jawali Tehsil-Katghora
Dist - Korba (C.G.) 495445, Tel : 07815-285511, 285512
Fax 07815-285884, 285885, Email : 2x30mw@acbindia.com
Email : arianpower30@gmail.com

Ref: ACBIL/2X30MW/ENV/2023/ 045

Dated: 25.05.2023

To

Regional Officer,
Chhattisgarh Environment Conservation Board,
Korba, (C.G.).

Sub: M/s. ACB (India) Limited, 30 MW Coal Washery Rejects Based Thermal Power Plant at Village-Chakabura, Tehsil-Katghora, District-Korba, Chhattisgarh - 495445 - **Submission of Six monthly compliance report for the period Oct 2022 to March 2023-reg.**

Ref: Environmental Clearance no.378/SEIAA-CG/EC/TPP/ KOR/77/09, dated 23.11.2009.

Dear Sir

As per the conditions in the SEIAA/MoEF Environmental Clearance, please find attached the Six Monthly compliance reports and the monitoring data along with statistical interpretation for the period October 2022 to March 2023.

Kindly acknowledge on the receipt of the same

Yours faithfully,

For ACB (India) Limited.


Authorized Signatory

Encl: As Above.





Krishnamoorthy Govindan <krishnamoorthy.govindan@acbindia.com>

Six Monthly EC Compliance Report (Oct 2022 to March 2023) ACBIL 2X30 MW TPP-Reg.

1 message

Krishnamoorthy Govindan <krishnamoorthy.govindan@acbindia.com>

Thu, Jun 1, 2023 at 5:24 PM

To: IRO Raipur <iro.raipur-mefcc@gov.in>, seiaacg@gmail.com, hocecb@gmail.com, Regional Office Korba <rocecbkorba@gmail.com>

Cc: G Sambasiva Rao <Sambasiva.Rao@acbindia.com>

Dear sir,

Please find attached herewith six monthly compliance reports of ACB (India) Limited, 2X30 MW Thermal Power Plant at Po-Jawali, Tehsil-Katghora, District-Korba, Chhattisgarh for the period of Oct 2022 to March 2023.

Note: Hard copy of six monthly compliance reports sent by courier.

This is for your information and record please.

Thanks with regards
Dr.G.Krishnamoorthy
Sr.Manager-Environment
Ph. +91 9940265695

5 attachments



Member Secretary,CECB,Raipur.PDF
1865K



MoEF & CC,IRO,Raipur.PDF
1911K



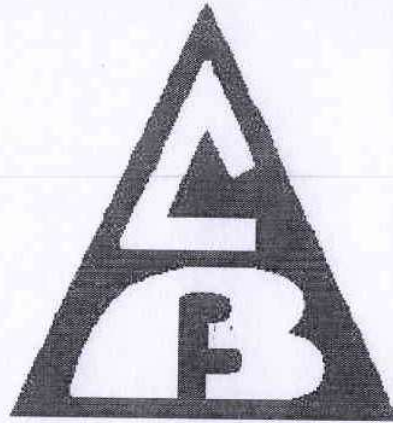
Regional Officer,CECB,Korba.PDF
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Member Secretary,SEIAA,Raipur.PDF
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Monitoring Report.PDF
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**SIX MONTHLY COMPLIANCE REPORT
OCTOBER-2022 TO MARCH 2023**

**ACB (India) Limited
Village-Chakabura, Tehsil-Katghora,
District-Korba, Chhattisgarh - 495445.**

ACB (India) Limited
Village-Chakabura, Tehsil-Katghora,
District-Korba, Chhattisgarh- 495445

Compliance status of the conditions under Environmental Clearance
F.No. 378/SEIAA-CG/EC/TPP/KOR/77/09, dated 23.11.2009

S. No.	Specific Conditions	Detailed compliance status								
1	<p>The acquisition of land for the 30 megawatt Coal Washery Rejects Based Thermal Power Plant shall be restricted to maximum 8.96 ha. with the following break-up:-</p> <table><tr><td>Power area and auxiliaries</td><td>4.91 ha</td></tr><tr><td>Green belt</td><td>3.23 ha</td></tr><tr><td>Common/Storage</td><td>0.82 ha</td></tr><tr><td>Total</td><td>8.96 ha</td></tr></table>	Power area and auxiliaries	4.91 ha	Green belt	3.23 ha	Common/Storage	0.82 ha	Total	8.96 ha	<p>The project authority implemented proposed project within 8.96 ha land as per environmental clearance land use breakup. Enclosed approved layout drawing as Annexure-1. Already submitted to MoEF &CC, Raipur dated 26.04.2023</p>
Power area and auxiliaries	4.91 ha									
Green belt	3.23 ha									
Common/Storage	0.82 ha									
Total	8.96 ha									
2	<p>The consumption of coal washery rejects shall be 780 TPD (0.2847 MTPA) which will be sourced from the operating 6 MTPA washery at Chakabura of M/s Aryan Coal Beneficiation Private Limited.</p>	<p>30 MW TPP designed Coal washery reject based Thermal Power Plant and required coal sourced from nearby 7.5 MTPA Chakabura Coal Washery of ACB (India) Limited.</p>								
3	<p>Project proponent shall provide adequate facility for proper treatment of industrial and domestic effluent. Project proponent shall provide effluent treatment plant before commissioning of the plant. All the effluent treatment system shall be kept in good running condition all the time and failure (if any), shall be immediately rectified without delay otherwise same alternate arrangement shall be made. Project proponent shall ensure the treated effluent quality within standard prescribed by Ministry of Environment & Forests, Government of India.</p>	<ul style="list-style-type: none">• Appropriate effluent treatment plant for the treatment of industrial effluent (ETP) capacity of 1000 KLD and a Sewage treatment plant capacity of 10 KLD for the domestic sewage installed and operational. Enclosed Photographs as Annexure-2. Already submitted to MoEF &CC, Raipur dated 26.04.2023.• Treated effluent quality is maintained within standards prescribed by Ministry of Environment, Forests and Climate Change, Government of India. Enclosed Effluent monitoring report as Doc-09. Already submitted to MoEF &CC, Raipur dated 26.04.2023.								
4	<p>Any liquid effluent what so ever generated from industrial activities shall not be discharged into the river or any surface water bodies under any circumstances, and it shall be reused wholly in the process/plantation.</p> <p>All the industrial effluent generated shall be re-circulated/reused after proper treatment.</p> <p>Project proponent shall provide sewage treatment plant of adequate capacity for treatment of domestic effluent generated from township. The un-treated/treated domestic effluent shall not be discharge into the river or any surface water bodies.</p> <p>The treated domestic effluent shall be used for plantation purpose after proper disinfections. Industry shall make proper arrangements of suitable drains/pipe networks to ensure adequate flow for utilization of treated effluent inside the premises.</p> <p>The concept of zero discharge shall be</p>	<ul style="list-style-type: none">• No liquid effluent is discharged into the river or any surface water bodies.• DM water blow down after treatment in neutralization pit is being used for dust suppression. Blow down water after treatment is being used for green belt development.• We have installed 10 KLD STP for domestic effluent treatment and presently working in good condition.• Not discharged any Untreated/treated domestic effluent into river or any surface water bodies. After treatment domestic effluent is being used for green belt development.• Industry provided suitable garland drain facility inside the plant premises. Enclosed garland drain photographs as Annexure-3. Already submitted to MoEF &CC, Raipur								

	maintained all the time except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.	dated 26.04.2023. • The plant is operating on Zero Discharge Concept and no effluent is drained outside the plant premises except monsoon season. Appropriate arrangements are made in the project.
5	Project proponent shall provide adequate measuring arrangements for the measurement of water utilized in different categories and effluent generated before commissioning of the plant.	Adequate metering arrangement for the measurement of water utilized in different categories and effluent generation has been installed. Enclosed metering arrangement photographs as Annexure-4 . Already submitted to MoEF &CC, Raipur dated 26.04.2023.
6	As no additional water will be required for proposed 30 MW power plant over and above the previous allocated water for the existing 30 MW power plant and coal washery, hence closed cycle cooling system (water cooled condensers) with COC of at least 6 shall be adopted.	Water balance and water allotment and agreement letter enclosed as Annexure-5 & Doc-5 . Already submitted to MoEF &CC, Raipur dated 26.04.2023. Closed circuit system with a COC of 6 is maintained for conservation of water as per the prescribed norms. Annexure-6 . Already submitted to MoEF &CC, Raipur dated 26.04.2023.
7	Project proponent shall explore the possibility of independent and dedicated air cooled condensers with auxiliary system for each turbine unit.	Independent and dedicated air cooled condensers with auxiliary system for 30 MW turbine unit are installed.
8	<p>Project proponent shall provide adequate air pollution control arrangements at all point and non-point sources.</p> <p>Electro Static Precipitator(s) having efficiency of not less than 99.8% (with maximum designed emission of particulate matter less than 50 mg/Nm³ in one field out condition) in all the boilers, suitable & effective air pollution control equipments (adequate dust extraction system such as cyclones/ bag filters) for the control of emission from processes/ operations and for the control of emission during the handling & transportation of raw materials/washery rejects/ ash etc. shall be installed before commissioning of the plant.</p> <p>Project proponent shall install suitable & effective air pollution control equipments at all transfer points, junction points etc., also. All the conveying system, transfer point, junction points etc. shall be covered. Closed conveying system (Tube conveyor) with dust suppression mechanism shall be used for transport of coal washery reject from the coal washery and for carrying the ash to the disposal areas. Adequate provision shall be made for sprinkling of water at strategic locations for ensuring fly ash does not get air borne. For controlling fugitive dust, regular sprinkling of water in coal handling and other vulnerable areas of the plant shall be ensured. The emission of pollutants from any point source shall not exceed the following limit:-</p>	<p>• Air pollution control equipment's at all point and non-point source of pollution have been installed. Enclosed as Annexure-7 & 8. Already submitted to MoEF &CC, Raipur dated 26.04.2023.</p> <p>• High efficiency ESP with Fabric filter is installed to maintain an emission level of less than 50 mg/Nm³. Online website details i.e. Web: enviscecb.org/ User id: AcbIndia Password: Acb_india123</p> <p>• Adequate number of Dust Suppression and Extraction System are installed. Space has been kept for further retrofitting of air pollution control systems in case of further stringent of particulate matter emission limit is required.</p> <p>• All the conveying system transfer point junction points are covered.</p> <p>• For controlling fugitive dust, regular sprinkling of water in coal handling and other vulnerable areas of the plant is being done as per requirement.</p>

	<div> <div>Particulate Matter</div> <div>50 mg/Nm³ (Fifty Milligram per Normal Cubic Meter)</div> </div>	
	Project proponent shall provide proper space provision for further retrofitting of air pollution control systems in case of further stringent of particulate matter emission limit.	
9	All air pollution control systems shall be kept in good running conditions all the time and failure (if any), shall be immediately rectified without delay otherwise sane alternate arrangement shall be made. In the event of any failure of any pollution control system adopted by the industry, the respective production unit shall not be restarted until the control measure are rectified to achieve the desired efficiency.	All the pollution control systems are maintained in good running conditions.
10	<p>Regular monitoring of ground level concentration of SO₂, NO_x, SPM and RSPM shall be carried out in the impact zone and records maintained.</p> <p>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 CECB Raipur.</p> <p>Periodic reports shall be submitted to SEIAA Chhattisgarh and the Regional Office Bhopal, of Ministry of Environment & Forests, Government of India.</p>	<ul style="list-style-type: none"> Monthly Environmental monitoring has been carried out through NABL accredited lab for ground level concentration of SO₂, NO_x, SPM and RSPM in the impact Zone and records being maintained regularly. Necessary control measures to be taken immediately. The locations of the monitoring stations and frequency of monitoring has been decided by CECB, Raipur. Enclosed monitoring location maps as Annexure-9. Already submitted to MoEF &CC, Raipur dated 26.04.2023. Periodic reports are being submitted to SEIAA Chhattisgarh and the Regional Office, Raipur of Ministry of Environment, Forests and Climate Change (MoEF &CC), Government of India, Enclosed as-Doc.9. Already submitted to MoEF &CC, Raipur dated 26.04.2023.
11	<p>Project proponent shall provide a single flue stack of 90 meters height with top internal diameter of 3.5 meter for adequate dispersal of gaseous pollutants emitted from boilers with continuous online monitoring instrument for SO_x, NO_x, and Particulate Matter. Exit velocity of flue gaseous shall not be less than 23.0 Nm³/sec for adequate dispersal of gaseous pollutants.</p> <p>Continuous record of exit velocity shall also be maintained and submitted to the SEIAA, CG and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal on a yearly basis. The height of other stack(s) shall not be less than 30 meters.</p>	<p>Single Flue stack of 90 m height and 3.5 m top internal diameter with continuous online monitoring facility for SO_x, NO_x and Particulate Matter provided.</p> <p>Web: enviscecb.org/ User id: AcbIndia Password: Acb_india123</p> <p>Exit velocity of flue gases pollutants level maintained less than 23.0 Nm³/sec. Regular exit velocity data being submitted to SEIAA, CG and Regional Office, Ministry of Environment, Forests and Climate Change (MoEF &CC), Government of India, Raipur on half yearly basis. Enclosed stack photographs as Annexure-10. Already submitted to MoEF &CC, Raipur dated 26.04.2023.</p>
12	Sulphur and ash contents in the fuel: coal washery reject to be used in the project shall not exceed 0.4% and 55 % respectively at any given time.	Sulphur and ash contents in the liquid are less than 0.4% and 55% respectively maintained.
13	Adequate number of permanent ambient air quality monitoring stations (not less than four) in the core zone as well as buffer zone for SPM,	ACBIL installed four numbers of Continuous Ambient Air Quality Monitoring Stations (CAAQMS). Enclosed

	<p>RPM, CO, NOx and SO2 shall be set-up in the down wind direction as well as where maximum ground level concentrations are anticipated in consultation with the Chhattisgarh Environment Conservation Board. Monitoring net-work shall be designed taking into account the environmentally and ecologically sensitive targets, land use pattern, location of the stacks, meteorological conditions and topographic features including existing ambient air quality data.</p> <p>The data so collected shall be properly analyzed and submitted to the SEIAA CG and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal in every six months.</p>	<p>monitoring stations photographs as Annexure-11. Already submitted to MoEF &CC, Raipur dated 26.04.2023.</p> <p>The data collected is being submitted to the Chhattisgarh Environment Conversation Board, Raipur & Regional Office, Korba, SEIAA, Chhattisgarh and Integrated Regional Office, Ministry of Environment, Forests & Climate Change (MoEF & CC), Government of India, Raipur.</p>
14	<p>Space provision for installation of flue gas de-sulphurization plant (FGD) shall be made so that the same could be installed, if required from environmental angle. Due to commissioning of the power generation units, if 98 percentile values for SO2 (based on actual monitored field data) in the ambient air of nearby areas exceed the prescribed permissible limit for respective sensitive areas, rural, residential and other areas; project proponent shall install flue gas de-sulphurization units immediately without any delay.</p>	<ul style="list-style-type: none"> • Necessary space has been provided for FGD. • Ambient air 98 percentile values for SO₂ not exceeded and also there is no surrounding effect like sensitive, rural, residential and other area so far.
15	<p>Project proponent shall install separate electric metering arrangements with time totalizer for the running of pollution control devices. These arrangements shall be made in such a fashion that any non-functioning of pollution control device /devices shall immediately stop the electric supply to the fuel supply system and shall remain tripped till the pollution control device/devices are made functional again /rectified to achieve the desired efficiency.</p>	<p>ACBIL already installed separate electric metering arrangements with time totalizer for the running of pollution control devices. Enclosed energy meter and totalizer as Annexure-12. Already submitted to MoEF &CC, Raipur dated 26.04.2023.</p>
16	<p>To reduce the load on surface water source, dry ash extraction, handling and disposal system shall be adopted. No ash dyke shall be constructed.</p> <p>Project proponent shall incorporate total ash utilization as integral part of the project. Project proponent shall install dry fly ash extraction system so that ash generated during the power generation, collected in dry form and it shall be utilized 100% for other beneficial uses such as bricks/blocks /products making, road construction, cement making, abandoned mines filling and low lying area filling etc. as per guidelines/ notification of Ministry of Environment and Forests, Government of India/ Central Government/ Central Pollution Control Board.</p> <p>Project proponent shall provided silos of adequate capacity with pneumatic/ automatic arrangement of dry fly ash withdrawal to avoid dust emissions for dry collection and withdrawal of fly ash generated to facilitate the use of fly ash for different beneficial purposes such as</p>	<ul style="list-style-type: none"> • No ash dyke shall be constructed. • Silos of adequate capacity with pneumatic/automatic arrangement of dry ash storage constructed and in use. Enclosed silo photographs as Annexure-13. Already submitted to MoEF &CC, Raipur dated 26.04.2023. • Dry bottom ash handling system is installed and being used. • Ash silo of adequate capacity is provided, Ash sent to brick/ block/ products making, road construction, cement making etc.

	brick/ block/ Products making, road construction, Cement Making, etc. No permanent storage of fly ash shall be created and during the transition. Project proponent shall also use fly ash/ bottom ash/ pond ash based products for the construction activities.	
17	Project proponent shall install fly ash brick/block/products-manufacturing machine of adequate capacity before start of construction activities of super structure of 30 megawatt units. Project proponent shall utilize the fly ash bricks/blocks etc. manufactured by own fly ash brick/block manufacturing machine in its construction activities. Project proponent shall procure fly ash from nearby power plants for manufacturing of fly ash brick /block/products till the commissioning of the power plant. After commissioning of the power plant, the fly ash generated from power plant shall be utilized for manufacturing of fly ash brick/block/products. Projects proponent shall install additional fly ash brick/block/products-manufacturing machine of adequate capacity before commissioning of the power plant.	<ul style="list-style-type: none"> • Fly Ash Brick Plant installed and operational. Enclosed unit photos as Annexure-14. Already submitted to MoEF &CC, Raipur dated 26.04.2023. • Fly ash used for making of ash brick/block/ products and also construction purpose.
18	Project proponent shall follow the guidelines, notification etc. for utilization of fly ash/bottom ash/pond ash issued by Ministry of Environment and Forests, Government of India/Central Government/Central Pollution Control Board from time to time. 100% fly ash utilization shall be achieved within 9 years in accordance with the notification on fly ash utilization SO 763 (E) dated 14/09/1999 and the amendments made therein from time to time. Industry shall abide by the decisions taken by Ministry of Environment and Forests, Government of India/Central Pollution Control Board from time to time regarding use of fly ash/bottom ash/pond ash.	ACBIL following all guidelines issued by the Ministry of Environment and Forests, Government of India/Central Government/Central Pollution Control Board for utilization of fly ash/bottom ash/pond ash.
19	Project proponent shall take effective steps for safe disposal of solid wastes and sludge. Project proponent shall obtain authorization from Board for management and handling of Hazardous Wastes as per Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008.	<ul style="list-style-type: none"> • ACBIL taken effective steps for safe disposal of solid waste and sludge. • Hazardous waste authorization obtained from Chhattisgarh Environment Conservation Board. Vide letter no 918/HSMD/HO/CECB/2022, Dated 10/05/2022 valid from 15.02.2022 to 14.02.2027. Enclosed as Doc-04. Enclosed hazardous waste storage shed photographs as Annexure-15. Already submitted to MoEF &CC, Raipur dated 26.04.2023.
20	All the internal roads shall be made pucca before commissioning of the power plant. Good housekeeping practices shall be adopted by the project proponent.	<ul style="list-style-type: none"> • All internal roads are made pucca. Enclosed photographs as Annexure-16. Already submitted to MoEF &CC, Raipur dated 26.04.2023. • Good housekeeping practices are adopted in the plant premises. Enclosed photographs as Annexure-16.a. Already submitted to MoEF &CC, Raipur dated 26.04.2023.
21	Project proponent shall take proper action to	• ACBIL appointed third party NABL

	<p>control the noise pollution. Project proponent shall install appropriate noise barriers/control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation to control the noise. Earplugs/ear muffs etc. shall be provided to the employee working in the area of generator halls and other high noise areas. Leq of /noise levels emanating from turbines shall be limited to 75 dB(A). The noise level shall not exceed the limits 75 dB(A) during the daytime and 70 dB (A) during the nighttime within the factory premises. Project proponent shall take adequate measures for control of noise level below 80 dB (A) in the work environment. 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.</p>	<p>accredited lab for conducting noise monitoring at different location of plant. Enclosed noise monitoring location map and report as Annexure-09. Already submitted to MoEF &CC, Raipur dated 26.04.2023.</p> <ul style="list-style-type: none"> • Personal Protective Equipment's e.g Ear plug/ear muffs etc are provided to all personnel working in high noise level areas as Annexure-17. Already submitted to MoEF &CC, Raipur dated 26.04.2023. • We have ensured that the Leq of noise level is maintained within norms. • Workers engaged are periodically examined medically.
22	<p>Project proponent shall provide appropriate arrangements to avoid air pollution, water pollution, noise pollution etc. during construction phase and during transportation of plants/ machineries/ equipments/ construction materials etc. to the site for 30 megawatt units. For controlling fugitive dust during transportation and construction works, regular sprinkling of water in village roads and other vulnerable areas of the plant shall also be ensured. The emission from vehicles engaged for transportation of plants/ Machineries/ equipments/ construction materials etc. to the site shall be ensured within prescribed vehicle emission norms. First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.</p>	<ul style="list-style-type: none"> • ACBIL appointed third party NABL accredited lab for conducting air pollution, water pollution, noise pollution, fugitive dust monitoring, etc during construction and operation of plant at different location of plant. • Regular sprinkling of water on transport roads is being done through 10 KLD truck. Enclosed photographs as Annexure-17.a. Already submitted to MoEF &CC, Raipur dated 26.04.2023. • First aid and sanitation arrangements are made available.
23	<p>The construction of effluent treatment plant and installation of air pollution control equipments shall be taken up simultaneously with other civil/mechanical works of 30 megawatt units. The progress of the activities related to the project shall be submitted periodically to SEIAA, CG and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.</p>	<p>ACBIL already installed 1000 KLD capacity of Effluent treatment plant (ETP) and air pollution control equipment.</p>
24	<p>Project proponent shall provide adequate number of influent and effluent quality monitoring stations/points in consultation with Chhattisgarh Environment Conservation Board. Regular monitoring shall be carried out for relevant parameters. Regular monitoring of surface and ground water quality including heavy metals shall be undertaken around the project area to ascertain the change in the water quality, if any, due to leaching of contaminants from disposal area/project area. Result and data collected shall be analyzed to ascertain the status of water quality and findings shall be submitted.</p>	<p>Online effluent quality monitoring station was installed for measurement for effluent quality continuously. System is already connected to server of CECB and CPCB as per guidelines. Enclosed online connectivity analyzer photographs as Annexure-17.b. Already submitted to MoEF &CC, Raipur dated 26.04.2023.</p> <p>Web. enviscecb.org/ User id: AcbIndia Password: Acb_india123</p>

	Continuous monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations at the proponents cost in around project area in consultation with Regional Director, CGWB, Central Region Bhopal. Project proponent,shall install at least four observation wells around the fly ash disposal area.	<ul style="list-style-type: none">• Analysis results are being submitted to Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Korba, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.• Installation of piezometer around the as dyke area being established in consultation with CGWB within 6 months period.			
25	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in fuel yard, especially during summer season. Copy of the these measures with full details along with location plant layout shall be submitted to SEIAA, CG and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.	Adequate Safety measures are provided in the plant area to check/minimize spontaneous fires in fuel yard.			
26	<p>Storage facilities for auxiliary liquid fuel such as LDO and/HFO/LSHS shall be made in the plant area where risk is minimum to the storage facilities.</p> <p>Disaster Management plan shall be prepared to meet any eventuality in case of an accident taking place.</p> <p>Mock drills shall be conducted regularly and based on the same, modifications required, If any shall be incorporated in the DMP.</p> <p>Sulphur content in the liquid fuel will not exceed 0.5%.</p>	<ul style="list-style-type: none">• Storage facilities for auxiliary liquid fuel i.e. LDO constructed as per applicable norms in the plant area where risk is minimum to the storage facilities enclosed tank photographs as Annexure-17.c. Already submitted to MoEF &CC, Raipur dated 26.04.2023.• Disaster Management plan is prepared to meet any eventuality details already submitted. Enclosed Onsite emergency plan as Annexure-18. Already submitted to MoEF &CC, Raipur dated 26.04.2023.• Mock drills are conducted regularly, based on finding, modifications will be done if required. Recent mock drill report attached as Annexure-18a. Already submitted to MoEF &CC, Raipur dated 26.04.2023.• Sulphur content in the liquid is less than 0.5%			
27	<p>A wide green belt of broad leaf local species shall be developed in at least 35% of the project area. As for as possible maximum area of open spaces shall be utilized for plantation purposes.</p> <p>Project proponent shall abide by the decisions taken by Ministry of Environment and forests, Government of India/Central Government/Central Pollution Control Board from time to time in this regard. Tree density of 1500-2000 trees per hectare with local broad leaf species should be maintained. At least 3.23 ha (about one third of the total plant area) shall be used for green belt development.</p>	<ul style="list-style-type: none">• Green belt has been developed all along the boundary of the ash pond area.• Local broad leaf species are selected for plantation purposes• Plant has already achieved the target for the development of green belt /plantation to covers 35 % area of the plant premises.• A thick green belt has been developed along the peripheral boundary of the plant. Regular plantation is carried out as per the guidelines inside the plant with native plant species. Year wise plantation details enclosed as Annexure-19 & Doc 5. Already submitted to MoEF &CC, Raipur dated 26.04.2023.			
28	<p>Project proponent shall provide garland drains with appropriate check dams all along the fuel, dust / ash storage areas etc. to avoid any possibility of erosion (wearing away) during rain.</p> <p>Garland drain (size, gradient & length) and</p>	<ul style="list-style-type: none">• ACBIL provided required garland drains with check dam along the dust/ash storage area and there will not be any erosion during rainy season.• Garland drain provided dimension details.			
		Location	Length Mtr.	Wide mm	Depth mm

	<p>sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the project site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains.</p> <p>Project proponent shall provide adequate collection and treatment arrangement for proper management of storm water. The surface run-off shall be de-silted through a series of check dams and drains.</p>	<table><tr><td>Turbine & Generator building to ETP</td><td>260</td><td>400</td><td>600 to 800</td></tr><tr><td>Boiler to ETP</td><td>340</td><td>400</td><td>600 to 800</td></tr><tr><td>Switchyard to silo</td><td>480</td><td>600</td><td>600 to 1200</td></tr><tr><td>Turbine & Generator building, boiler & ETP</td><td>810</td><td>600</td><td>400 to 1000</td></tr><tr><td>CHP area</td><td>340</td><td>400</td><td>400 to 800</td></tr></table> <ul style="list-style-type: none">• We have provided sump capacity of 1200 m³ with proper settling provision.• Sedimentation pits also constructed each corner of garland drains.• ACBIL provided collection and treatment facility for storm water and separate surface run-off de-silted through check dams and drainage.	Turbine & Generator building to ETP	260	400	600 to 800	Boiler to ETP	340	400	600 to 800	Switchyard to silo	480	600	600 to 1200	Turbine & Generator building, boiler & ETP	810	600	400 to 1000	CHP area	340	400	400 to 800
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Turbine & Generator building, boiler & ETP	810	600	400 to 1000																			
CHP area	340	400	400 to 800																			
29	<p>Rain water harvesting structures shall be provided to reduce load on ground water. Either rain water shall be properly stored and used for various processes. Project proponent shall adopt rainwater- harvesting technique in the project area and residential area for recharge of ground water. The rainwater-harvesting technique shall be incorporated right from the design stage of all structures.</p> <p>Project proponent shall develop rainwater-harvesting structures to harvest the rainwater for utilization in the lean season as well as to recharge the ground water table. A detailed scheme for rainwater harvesting to recharge the ground water aquifer shall be prepared in consultation with Central Ground Water Authority/State Ground Water Board. A copy of the same shall be submitted within three months to the SEIAA, CG and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal. No ground water shall be used for any purpose.</p>	<ul style="list-style-type: none">• ACBIL constructed roof top rain water harvesting pit all the buildings, residential areas for ground water recharge. Enclosed rainwater recharge pit as Annexure-20. Already submitted to MoEF &CC, Raipur dated 26.04.2023.• We have developed rain water harvesting structure/reservoir for utilization of lean season with capacity of 1200 cum.• Rainwater harvesting to recharge the ground water aquifer details submitted to SEIAA, CG and Integrated Regional Office, Ministry of Environment and Forests, Government of India, Raipur.• Ground water not used any purpose.																				
30	<p>Project proponent shall establish an environmental management cell to carryout function relating to environmental management under the supervision of senior executive who will directly report to the head of organization. A full-fledged laboratory with qualified technical/scientific staffs to monitor the influent, effluent, ground water, surface water, soil, stack emission and ambient air quality etc. shall be provided.</p>	<p>A separate Environment Management Cell with qualified personnel under the supervision of the Plant Head is set up to monitor compliance of the conditions stipulated. Enclosed as Doc-9. Already submitted to MoEF &CC, Raipur dated 26.04.2023.</p> <p>A full-fledged laboratory with qualified technical/scientific staffs to monitor the influent, effluent, ground water, surface water, soil, stack emission and ambient air quality etc is provided.</p>																				
31	<p>Adequate funds shall be allocated for undertaking CSR activities (community welfare, environmental development activities apart from committed plantation) and in any case it shall</p>	<p>Separate fund is being allocated for implementation of the Environmental Protection measures.</p> <p>The CSR initiatives initiated includes</p>																				

	not be less than Rs. 11.0 lacs per year with 10% annual increase in subsequent years. Details of activities shall also be submitted to SEIAA Chhattisgarh and Regional office. Ministry of environment & Forests, Government of India, Bhopal. The funds earmarked for the environment protection measures shall not be diverted for the other purpose and year-wise expenditure should be reported to the SEIAA Chhattisgarh and Regional Office. Ministry of Environment & Forests, Government of India, Bhopal.	establishing /strengthening of schools roads, drainage and sanitation, community halls, drinking water into the villages and skill development of the local communities around of project site villages. Enclosed CSR activities details as Annexure-21 . Already submitted to MoEF &CC, Raipur dated 26.04.2023.
32	Project proponent shall also ensure the availability of adequate pastureland for cattle feed after acquisition of land for power plant. Project proponent shall also facilities, the respective Gram Panchayats for development of alternative posture land for cattle feed in the villages as per demand of concerning Gram Panchayat.	There is no R & R activities involved this project.
33	The issuance of the this environmental clearance does not convey any property rights in either real or personal property, or any exclusive privileges, nor does not authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State or Local laws of regulations.	Agreed to comply.
34	The PAP shall be rehabilitated/ Compensation in accordance with the norms of the State Government. Details of R&R plan with compensation package shall be submitted to SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.	R & R plan is not applicable for this plant, since no person would be displaced.
35	SEIAA, Chhattisgarh reserves the right to amend/cancel any of the conditions and add new conditions and further Stringent the emission/ effluent limit as and when deemed necessary in the interests of environmental protection, change in the project profile or non-satisfactory implementation of the stipulated conditions etc.	Agreed to comply
36	To ensure the generation of employment in the local areas, recruitment shall be done by inviting applications first from the local residents of the Chhattisgarh State. In case of non-availability of suitable candidates for certain post in the first attempt, the project proponent may call the applications as second call, not only from local residents of the Chhattisgarh State but also from other State.	Local employment list enclosed as Annexure-22 . Already submitted to MoEF &CC, Raipur dated 26.04.2023.
37	As per the proposal submitted, the project proponent should examine the feasibility of laying a railway siding for the transport of raw material. Hence, rail transport should be attempted as per priority. Roads transport should be carried out only if the rail transport is totally unavoidable. In case of road transport, transportation should be in covered tucks.	At present we are ensuring to properly cover the trucks for transportation of coal.
38	Provision shall be made for the housing of construction labour within the site with all	During construction phase temporary cooking, mobile toilets, mobile STP, safe

	necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crutch etc. The housing may be in the form of temporary structure to be removed after the completion of the project.	drinking water, medical health care, crutch facility provided and after completion of construction activities temporary structure are removed.
39	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the factories Act and records shall be maintained properly for the at-least 30-40 years.	Occupational health surveillance program is undertaken periodically and records maintained as per Factories Act. Enclosed report as Doc-13 . Already submitted to MoEF &CC, Raipur dated 26.04.2023.
40	The project proponent shall also comply with all the environmental protection measures and safe guards recommended in the EIA/EMP report.	Point wise EIA/EMP conditions already complied.
41	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 Chhattisgarh Environment Conservation Board and may also seen at Website of the Ministry of Environment and Forests at www.envfor.nic.in and website of SEIAA, Chhattisgarh at www.seiaacg.org .	Already published.
42	Half yearly report on the status of implementation of the stipulated conditions, monitoring data along with statistical interpretation and environment safeguards shall be submitted to the Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Korba, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal.	Half yearly compliance report of Air, Water, Noise, fugitive emission, etc. submitted regularly to Chhattisgarh Environment Conservation Board, Raipur, Integrated Regional Office, Chhattisgarh Environment Conservation Board, Korba, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment and Forests, Government of India, Raipur.
43	Regional Office of the Ministry of Environment and Forests at Bhopal 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.	We have submitted completed set of Environment Impact Assessment Report and Environment Management Plan along with the additional information to Integrated Regional Office of Ministry of Environment and Forests, at Raipur on time.
44	Full cooperation shall be extended to the Scientists/ Officers from the SEIAA, Chhattisgarh, Ministry of Environment & Forests, Government of India/ Regional Office, Ministry of Environment & Forests, Government of India, Bhopal/ the CECB/ the Chhattisgarh Environment conservation Board, who would be monitoring the compliance of environment status.	Agreed to comply
45	The environment clearance accorded shall be valid for a period of 5 years to start of production operations by the power plant.	Agreed to comply
46	In case of any deviation or alteration in the proposed project from those submitted to this	Agreed to comply

	SEIAA, Chhattisgarh for clearance, a fresh reference should be made to the SEIAA, Chhattisgarh to assess the adequacy of the condition (s) imposed and to add additional environment protection measures required, if any. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests, Government of India/SEIAA, Chhattisgarh.	
47	The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the State Government.	Agreed to comply
48	The project authorities shall inform the Regional office, Ministry of Environment & Forest, Government of India, Bhopal and SEIAA Chhattisgarh about date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.	Agreed to comply
49	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) act, 1986 and rules there under, Hazardous Wastes (Management, Handling and Trans Boundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	Agreed to comply.
50	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environment Appellate Act. 1997.	Agreed to comply