



ACB (INDIA) LIMITED

2x 135 MW Kasaipali Power Plant, Kasaipali, P.O. - Jawali,
Tehsil - Katghora, Distt. - Korba (C.G.) 495445, Tel : 07815-285551(O)
Fax No.:- 07815-285887
Email : 270mw@acbindia.com

Ref: ACBIL/270MW/TPP/ENV/2023-24/LTR/ 0178

Dated: 26.05.2023

To

The Member Secretary
Chhattisgarh Environment Conservation Board
Paryavas Bhavan, North Block, Sector-19
Atal Nagar, District - Raipur- 492002
Chhattisgarh.

Sub: M/s. ACB (India) Limited, 2X135 MW Coal Based Thermal Power Plant at Village-Kasaipali, 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. 328/SEIAA-CG/EC/TPP/KOR/32/08, dated 22.12.2008.

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.





ACB (INDIA) LIMITED

2x 135 MW Kasaipali Power Plant, Kasaipali, P.O.- Jawali,
Tehsil - Katghora, Distt. - Korba (C.G.) 495445, Tel: 07815-285551(O)
Fax No.:- 07815-285887
Email : 270mw@acbindia.com

Ref: ACBIL/270MW/TPP/ENV/2023-24/LTR/0180

Dated: 26.05.2023

To

Member Secretary,
State Level Environment Impact Assessment Authority
1-Tilak Nagar, Shiv Mandir Chowk
Main Road, Avanti Vihar
Raipur(C.G)

Sub: M/s. ACB (India) Limited, 2X135 MW Coal Based Thermal Power Plant at
Village-Kasaipali, Tehsil-Katghora, District-Korba, Chhattisgarh- 495445-
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Page 5 of 17



Krishnamoorthy Govindan <krishnamoorthy.govindan@acbindia.com>

Six Monthly EC Compliance Report (Oct 2022 to March 2023) ACBIL 2X135 MW TPP-Reg.

1 message

Krishnamoorthy Govindan <krishnamoorthy.govindan@acbindia.com>

Tue, May 30, 2023 at 5:22 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, 2X135 MW Thermal Power Plant at Kasaipali, 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

-  **Regional Officer,CECB,Korba.PDF**
1986K
-  **Member Secretary,SEIAA,Raipur.PDF**
1991K
-  **MoEF & CC,IRO,Raipur.PDF**
1994K
-  **Member Secretary,CECB,Raipur.PDF**
2045K
-  **Monitoring report.pdf**
9058K



ACB (INDIA) LIMITED

2x 135 MW Kasaipali Power Plant, Kasaipali, P.O.- Jawali,
Tehsil - Katghora, Distt. - Korba (C.G.) 495445, Tel : 07815-285551(O)
Fax No.:- 07815-285887
Email : 270mw@acbindia.com

Ref: ACBIL/270MW/TPP/ENV/2023-24/LTR/ 0179

Dated: 26.05.2023

To

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

**Sub: M/s. ACB (India) Limited, 2X135 MW Coal Based Thermal Power Plant at
Village-Kasaipali, Tehsil-Katghora, District-Korba, Chhattisgarh- 495445-
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March 2023- reg.**

**Ref: Environmental Clearance no. 328/SEIAA-CG/EC/TPP/KOR/32/08, dated
22.12.2008.**

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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.

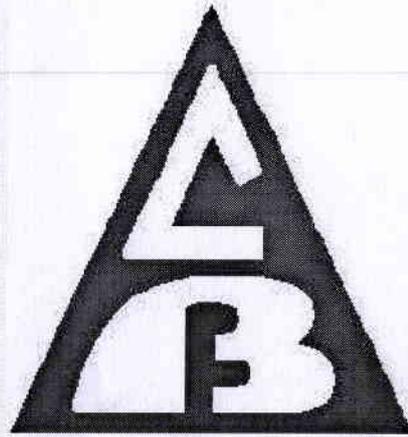
Kindly acknowledge on the receipt of the same

Yours faithfully,

For **ACB (India) Limited.**

Authorized Signatory

Encl: As Above.



**SIX MONTHLY COMPLIANCE REPORT
OCTOBER-2022 TO MARCH 2023**

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

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

Compliance status of the conditions under Environmental Clearance
F.No.328/SEIAA-CG/EC/TPP/KOR/32/08, dated 22.12.2008.

S. No.	Specific Conditions	Detailed compliance status																								
1	<p>The acquisition of land for the 1x300 = 300 megawatt coal based thermal power plant shall be restricted to maximum 174.50 Ha (431.0 acres) with the following break-up:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">S.N.</th> <th style="text-align: center;">Attribute</th> <th style="text-align: center;">Area in ha</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Power plant</td> <td style="text-align: center;">30</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>Ash Dyke</td> <td style="text-align: center;">33</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>Fuel Storage Area</td> <td style="text-align: center;">05</td> </tr> <tr> <td style="text-align: center;">4.</td> <td>Raw Water Storage Area</td> <td style="text-align: center;">02</td> </tr> <tr> <td style="text-align: center;">5.</td> <td>Township and colony</td> <td style="text-align: center;">14</td> </tr> <tr> <td style="text-align: center;">6.</td> <td>Greenbelt</td> <td style="text-align: center;">36</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total</td> <td style="text-align: center;">120</td> </tr> </tbody> </table>	S.N.	Attribute	Area in ha	1.	Power plant	30	2.	Ash Dyke	33	3.	Fuel Storage Area	05	4.	Raw Water Storage Area	02	5.	Township and colony	14	6.	Greenbelt	36	Total		120	<p>The project authority implemented proposed project within 120 ha land as per environmental clearance land use breakup. Enclosed approved layout drawing as Annexure-1. Already submitted to MoEF &CC, Raipur dated 07.03.2023.</p>
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2	<p>The confirmed coal linkage to meet the requirement for requisite quantity of coal (0.957 Million Tonne/Annum) for the ultimate capacity shall be obtained before commissioning the project. Copy of the coal linkage 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. The consumption of coal washery reject shall be 1.218 Million Tonne/Annum. The ratio of coal-to-coal washery reject shall be maintained as indicated above.</p>	<p>Raw coal linkage has been obtained 4.27 Lakh ton per year by MoC through Sakti scheme copy submitted to the SEIAA, CG and Regional Office, Ministry of Environment and Forests, Government of India, Bhopal. Enclosed coal linkage document as Doc-7. Already submitted to MoEF &CC, Raipur dated 07.03.2023.</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. Treated/un-treated effluent collection pond shall be lined suitably to prevent seepage in to ground for avoiding ground water contamination. 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 similar 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 and a Sewage treatment plant for the domestic sewage installed and operational. • Effluent treatment systems for industrial (ETP) with capacity of 4.8 MLD and domestic (STP) with capacity of 0.06 MLD are in good running condition. Enclosed photographs as Annexure.2. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • Treated effluent quality is maintained within standards prescribed by Ministry of Environment and Forests, Government of India. 																								



4	<p>Any liquid effluent what so ever generated from industrial activities including ash dyke (if any) 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. All the industrial effluent including ash dyke effluent (if any) generated shall be re-circulated/reused after proper treatment.</p> <p>Project proponant shall provide sewage treatment plant of adequate capacity for treatment of domestic effluent generated from township.</p> <p>The untreated/treated domestic effluent shall not be discharged into the river or any surface water bodies.</p> <p>The treated domestic effluent shall be used for plantation purpose after proper disinfections.</p> <p>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 maintained all the time except during monsoon. Arrangements shall be made that effluents and storm water do not get mixed.</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 0.06 MLD for domestic effluent treatment and presently working 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 drainage photographs as Annexure-3. Already submitted to MoEF &CC, Raipur dated 07.03.2023. •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	<p>Project proponant shall provide adequate measuring arrangements for the measurement of water utilized in different categories and effluent generated before commissioning of the plant.</p>	<ul style="list-style-type: none"> •Adequate Metering arrangement for the measurement of water utilized for different categories (Water balance) and effluent generation has been installed. Enclosed photographs as Annexure-4. Already submitted to MoEF &CC, Raipur dated 07.03.2023.
6	<p>Closed cycle cooling system with cooling towers shall be provided. COC of at least 6 shall be adopted and the effluents shall be treated as per the prescribed norms. Minimum water drawl for makeup purposes shall be ensured.</p>	<ul style="list-style-type: none"> •Closed circuit system with a COC of 6 is maintained for conservation of water as per the prescribed norms. Water drawl details enclosed as Annexure-5. Already submitted to MoEF &CC, Raipur dated 07.03.2023.
7	<p>Project proponant 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 99.9% (with maximum designed emission of particulate matter less than 50 mg/Nm³ in one field out condition) in all the boilers, suitable and 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 and transportation of raw materials/coal, fly ash/bottom ash etc shall be installed before commissioning of the plant.</p>	<ul style="list-style-type: none"> • Air pollution control equipment's at all point and non-point source of pollution have been installed. Enclosed air pollution monitoring system photograms as Annexure-6. Already submitted to MoEF &CC, Raipur dated 07.03.2023. •High efficiency ESP with Fabric filter is installed to maintain an emission level of ≤ 50 mg/Nm³. Closed conveying system along with HCSD System is used for conveying of ash to disposal area. Enclosed as Annexure-6.1. Already submitted to MoEF &CC, Raipur dated 07.03.2023.



	<p>Project proponent shall install suitable and effective air pollution control equipments at all the transfer points, junction points etc. also. All the conveying system transfer point junction point etc shall be covered.</p> <p>Closed conveying system with dust suppression mechanism shall be used for transport of coal and for carrying the ash to the disposal areas.</p> <p>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 sources shall not exceed the following limit: -</p> <table border="1" data-bbox="256 734 842 801"> <tr> <td>Particulate Matter</td> <td>50 mg/Nm³ (Fifty Milligram per Normal Cubic Meter).</td> </tr> </table> <p>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.</p>	Particulate Matter	50 mg/Nm³ (Fifty Milligram per Normal Cubic Meter).	<ul style="list-style-type: none"> • 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. • All the conveying system transfer point junction points are covered. • For controlling fugitive dust, regular sprinkling of water in coal handling and other vulnerable areas of the plant is being done as per requirement.
Particulate Matter	50 mg/Nm³ (Fifty Milligram per Normal Cubic Meter).			
8	<p>As per the affidavit submitted, the industry shall take adequate and necessary steps to ensure the transportation of entire requirement of raw coal to the factory by rail, for which, the company shall lay the rail track up to its own railway siding at plant premises within a period of maximum two years from the date of issue of Environmental Clearance after obtaining the necessary approvals from competent authorities.</p>	<p>State Government of Chhattisgarh is proposing rail corridor connecting Gevra road toendra in association with Indian railways and SECL.</p> <p>A chord line from this corridor is proposed to connect Junadih siding to Katghora railway station in the proposed corridor which is in the close proximity of the Power Plant. Once this corridor is established the project shall get connected to the railway siding.</p> <p>The project proponent has surrendered 7.8 Ha of land to the state government for rail corridor purpose.</p>		
9	<p>In case of transportation of other materials by road, the industry shall maintain fugitive dust emissions to the minimum level in the areas of road transportation routes to ensure National Ambient air Quality standards prescribed including black topping/asphalting/concreting and maintenance with requisite water sprinkling arrangements.</p>	<ul style="list-style-type: none"> • Sprinkling arrangements are done regularly through water tanker with capacity of 20 KLD all along the transport roads for the minimizing/restricting the fugitive dust emissions well within the limits, prescribed by regulatory authority. Enclosed water tanker photographs as Annexure-7. Already submitted to MoEF &CC, Raipur dated 07.03.2023. 		
9	<p>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 same 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 measures are rectified to achieve the desired efficiency.</p>	<p>All the pollution control systems are maintained in good running conditions.</p>		
10	<p>Regular monitoring of ground level concentration</p>	<ul style="list-style-type: none"> • Monthly Environmental monitoring has 		



	<p>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 be exceed the prescribed limits, the plant will cease all operations till necessary control measures are provided.</p> <p>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 Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Korba, SEIAA, Chhattisgarh and Regional Office Ministry of Environment & Forests, Government of India, and Bhopal.</p>	<p>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.</p> <ul style="list-style-type: none"> • The locations of the monitoring stations and frequency of monitoring has been decided by CECB, Raipur. Enclosed monitoring location maps as Annexure-8. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • Periodic reports are being submitted to SEIAA Chhattisgarh and the Regional Office Bhopal of Ministry of Environment and Forests, Government of India. Enclosed present report as Doc -10. Already submitted to MoEF &CC, Raipur dated 07.03.2023.
11	<p>Project proponent shall provide a bi- flue stack of 135 meters height with top internal diameter of 3.5 meter of each flue 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 gases shall not be less than 22m/sec for adequate disposal of gaseous pollutants.</p> <p>Continuous record of exit velocity shall also be maintained and 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 on a yearly basis. The height of other stack (s) shall not be less than 30 meter.</p>	<ul style="list-style-type: none"> • Bi- flue stack of 135 meters height with top internal diameter of 3.5 meter of each flue for adequate dispersal of gaseous pollutants emitted from boilers with continuous online monitoring facility for SO_x, NO_x, and Particulate Matter is provided. Exit velocity of flue gases is maintained at more than 22m/sec for adequate disposal of gaseous pollutants. Enclosed stack photographs as Annexure-8a. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • Continuous record of exit velocity is maintained and 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. • Online data transfer details: Web: https://enviscecb.org/ User id: ACBIL Password: Acbil@789
12	<p>Sulphur and ash contents in the raw coal to be used in the project shall not exceed 0.4% and 42% respectively at any given time. Similarly Sulphur and ash contents in the coal washery reject to be used in the project shall not exceed 0.4% and 60.5% respectively at any given time. Ash generation shall be limited to 3295 tonnes/day.</p>	<p>Sulphur and ash contents in the coal washery reject used in the project are less than 0.4% and 60% respectively.</p>
13	<p>Adequate number of permanent ambient air quality monitoring stations (not less than four) in the core zone as well as buffer zone for SPM, RPM, CO, NO_x, and SO₂ shall be set up in the down wind direction as well as where maximum ground level concentrations are anticipated in consultation with</p>	<ul style="list-style-type: none"> • ACBIL installed four numbers of Continuous Ambient Air Quality Monitoring Stations (CAAQMS). Enclosed monitoring stations photographs as Annexure-9. Already submitted to MoEF &CC, Raipur dated 07.03.2023.



	<p>the Chhattisgarh Environment Conservation Board. Monitoring network 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. The data so collected shall be properly analysed and submitted to the SEIAA, C.G. and Regional Office, Ministry of Environment and Forests, Government of India, Bhopal in every six months.</p>	<ul style="list-style-type: none"> • The data collected is being submitted to the Chhattisgarh Environment Conversation Board, Raipur, Regional Office, Chhattisgarh Environment conservation Board, Korba, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment & Forests, Government of India, Bhopal. Details attached as Doc-10. Already submitted to MoEF &CC, Raipur dated 07.03.2023.
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 ambient air of nearby areas exceeds 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 provisioned for FGD. • After commissioning of power generation unit, ambient air not exceeded and also there is no surrounding effect like sensitive, rural, residential and other area sofar.
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 are installed. Enclosed totalizer details as Annexure-10. Already submitted to MoEF &CC, Raipur dated 07.03.2023.</p>
16	<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 brick/block/products making, road construction, cement making, abandoned mines filling and low lying area filling, ash dyke height raising etc as per guidelines/notification of Ministry of Environment and Forests, Government of India/Central Government/Central Pollution Control Board. Project proponent shall provided silos of adequate capacity with pneumatic/automatic arrangement of dry 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 brick/block/products making, road construction, cement making etc. Project proponent shall also use fly ash /bottom ash/pond ash based products for the construction activities. Project proponent shall adopt dry ash disposal system or high ash concentration slurry disposal system for disposal of unutilized fly ash and</p>	<ul style="list-style-type: none"> • Silos of adequate capacity with pneumatic/automatic arrangement of dry ash storage constructed and in use. Enclosed photographs as Annexure-11. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • High Concentration Slurry Disposal System (HCSD) system installed and being used. Enclosed photographs as Annexure-11.a. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • 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.



	bottom ash in conventional slurry mode in ash pond.	
17	The disposal of fly ash especially for feeding the Cement Plants shall be done through transportation by rail to the maximum possible extent. The road transportation of ash and ash products shall be prohibited on road connecting the plant towards Dipka village due to the prevailing ambient air quality. The alternate routes in the northern direction or lower ambient air level routes shall be used.	No ash is being supplied to the cement plants. In case of any such event an alternative route shall be employed to maintain the ambient air levels to a lower level.
18	Project proponent shall install fly ash brick/block/products manufacturing machine of adequate capacity before start of construction activities of super structure of 1 x 300 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. Project 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. • Fly ash used for making of ash brick/ block/ products and also construction purpose.
19	Project proponent shall follow the guidelines, notification 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 Government/Central Pollution Control Board from time to time regarding use of fly ash/bottom ash/pond ash.	<p>Project proponent is following all the 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.</p> <p>We shall strictly abide by the decisions taken by Ministry of Environment and Forests, Government of India/Central Government/Central Pollution Control Board from time to time regarding use of fly ash/bottom ash/pond ash.</p>
20	Ash pond area shall be provided with impervious lining with suitable leachate collection systems to avoid any leaching of contaminants into underground water table/surface water. Project proponent shall provide suitable drainage systems around the fuel stock yard. Water sprinklers shall also be provided to control the ash emission from dyke area.	<ul style="list-style-type: none"> • Impervious lining and suitable leachate collection has been provided. • Drainage systems around the fuel stock yard have been provided. Enclosed Annexure-12. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • Adequate water sprinkling system has been provided around the dyke area.



	Adequate safety measures shall also be adopted for the ash dyke to prevent any breaching	<ul style="list-style-type: none"> • Safety measures as per norms are adopted for ash dyke to prevent any breaching.
21	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 materials as per Hazardous materials (Management, Handling and Trans boundary Movement) Rules, 2008. The industry shall take adequate and effective steps for the safe and scientific disposal of exhausted DM plant resin, which can also include the return of the same to the supplier.	<ul style="list-style-type: none"> • Authorization has been granted by Chhattisgarh Environment Conservation Board for management and handling of hazardous materials as per Hazardous materials (Management, Handling and Trans boundary Movement) Rules, 2008. Vide letter no 6130/HSMD/HO/CECB/2020 Dated 12/10/2020 valid up to five years. Hazardous waste copy & return enclosed as Annexure-13. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • All other wastes are disposed of as per the norms specified under the consent.
22	All the internal roads shall be made pucca before commissioning of the power plant. The project proponent shall adopt good housekeeping practices.	<ul style="list-style-type: none"> • All roads are made pucca and Good housekeeping practices are adopted in the plant premises. Enclosed photographs as Annexure-14. Already submitted to MoEF &CC, Raipur dated 07.03.2023.
23	Project proponent shall take proper action to 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 85 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 treatment for any hearing loss including shifting to non-noisy/less noisy areas	<ul style="list-style-type: none"> • ACBIL appointed third party NABL accredited lab for conducting noise monitoring at different location of plant. Enclosed noise monitoring reports as Doc-10. • Personal Protective Equipment's e.g Ear plug/ear muffs etc are provided to all personnel working in high noise level areas. Enclosed PPE details as Annexure-15. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • We have ensured that the Leq of noise level is maintained within norms. • Workers engaged are periodically examined medically.
24	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 1 x 300 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	<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. Enclosed noise monitoring reports as Doc-15. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • Regular sprinkling of water on transport roads is being done. • First aid and sanitation arrangements are made available. Enclosed first aid and sanitation details as Annexure-15. Already submitted to MoEF &CC, Raipur dated 07.03.2023.



25	<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 2x135 megawatt units. The progress of the activities related to the project shall be submitted periodically 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.</p>	<p>ACBIL already installed 0.06 MPD capacity of Effluent treatment plant (ETP) and air pollution control equipment also installed simultaneously. Enclosed as Annexure-2.1 & 2.2. Already submitted to MoEF &CC, Raipur dated 07.03.2023.</p>
26	<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.</p> <p>Regular monitoring of surface and ground water quality including heavy metals shall be undertaken around ash dyke and 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>Continuous monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations at the proponent's cost in and around project area including ash dyke 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</p>	<ul style="list-style-type: none"> • Online effluent quality monitoring station is installed for measurement for effluent quality continuously. System is already connected to server of CECB and CPCB as per guidelines. Enclosed as Annexure-16. Already submitted to MoEF &CC, Raipur dated 07.03.2023. Web: https://enviscecb.org/ User id: ACBIL Password: Acbil@789 • 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 ash dyke area will be completed within 6 months period. Enclosed ash dyke photo as Annexure-16.a Already submitted to MoEF &CC, Raipur dated 07.03.2023.
27	<p>Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in fuel yard especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to SEIAA, CG and Regional Office, Ministry of Environment and Forests, Government of India, Bhopal</p>	<p>Adequate Safety measures are provided in the plant area to check/minimize spontaneous fires in fuel yard. Copy of details enclosed as Annexure-15. Already submitted to MoEF &CC, Raipur dated 07.03.2023.</p>
28	<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. 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, HFO/LSHS constructed as per applicable norms in the plant area where risk is minimum to the storage facilities. Enclosed LDO storage tank photo as Annexure-17. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • Disaster Management plan / Onsite emergency plan is prepared to meet any eventuality details already submitted. Enclosed DMP/ Onsite emergency plan report as Annexure-18. Already submitted to MoEF &CC, Raipur dated 07.03.2023.



		<ul style="list-style-type: none"> • Mock drills are conducted regularly, based on finding; modifications will be done if required. Recent mock drill report attached as Annexure-18.b. Already submitted to MoEF &CC, Raipur dated 07.03.2023. • Sulphur content in the liquid is less than 0.5% 										
29	<p>At least 50 meter wide green belt of broad leaf local species shall be developed all along the boundary of the plant premises. At least 50 meter wide green belt shall be developed all along the boundary of the ash pond area. As far as possible maximum area of open spaces shall be utilized for plantation purposes. 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 151 acres (about 35% 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. As per Chhattisgarh Forest letter no.1721, dated 03.07.2017, we have purchased trees and planted enclosed year wise plantation details enclosed as Annexure-19. Already submitted to MoEF &CC, Raipur dated 07.03.2023. 										
30	<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 and length) and 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>	<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 and sump capacity details <table border="1"> <thead> <tr> <th>Location</th> <th>Dimension</th> </tr> </thead> <tbody> <tr> <td>Kachha Drain (Around Ash dyke)</td> <td>length -900M Width - 2M Depth 1.5 M</td> </tr> <tr> <td>RCC Drain (Back side of store to near Switchyard area)</td> <td>Length - 440 M Width 1.2 M Depth- 1 to 1.5 M</td> </tr> <tr> <td>RCC Drain (Silo To near Switchyard turning area)</td> <td>Length - 270M Width- 0.9 M Depth - 0.9 to 1.2 M</td> </tr> <tr> <td>RCC Settling Pit</td> <td>Size (12x6x4)CUM Size (9x9x3) CUM</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • ACBIL provided collection and treatment facility for storm water and separate surface run-off de-silted through check dams and drainage. 	Location	Dimension	Kachha Drain (Around Ash dyke)	length -900M Width - 2M Depth 1.5 M	RCC Drain (Back side of store to near Switchyard area)	Length - 440 M Width 1.2 M Depth- 1 to 1.5 M	RCC Drain (Silo To near Switchyard turning area)	Length - 270M Width- 0.9 M Depth - 0.9 to 1.2 M	RCC Settling Pit	Size (12x6x4)CUM Size (9x9x3) CUM
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31	<p>Project proponent shall adopt rainwater harvesting technique in the project area and residential area for recharge of ground water. The rain water 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 rain water for utilization in the lean season as well as to recharge</p>	<ul style="list-style-type: none"> • ACBIL constructed 9 number of 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 07.03.2023. • We have developed rain water harvesting structure/reservoir for utilization of lean 										



	<p>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 and Forests, Government of India, Bhopal. No Ground water shall be used for any purpose.</p>	<p>season with capacity of 60000 (2 x 3000) M³. Annexure-20.a. Already submitted to MoEF &CC, Raipur dated 07.03.2023.</p> <ul style="list-style-type: none"> • ACBIL already submitted rainwater harvesting pit to recharge the ground water aquifer study and same submitted to SEIAA, CG and Regional Office, Ministry of Environment and Forests, Government of India, Bhopal. • Ground water not used any purpose.
32	<p>Provision shall be made for housing of construction labour within the site with all necessary infrastructure and facilities, such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crutch etc. The housing may be in the form of temporary structure to be removed after the completion of the project.</p>	<p>During construction phase temporary cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crutch facility provided and after completion of construction activities temporary structure are removed.</p>
33	<p>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 at least 30-40 years</p>	<p>Occupational health surveillance is undertaken periodically and records maintained as per Factories Act. Enclosed report as Doc-14. Already submitted to MoEF &CC, Raipur dated 07.03.2023.</p>
34	<p>Project proponent shall also comply with all the environmental protection measures and safe guards recommended in the EIA/EMP report.</p>	<p>Point wise EIA/EMP conditions already complied.</p>
35	<p>Project proponent shall establish an environmental management cell to carryout function relating to environment 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 07.03.2023. 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>
36	<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 not be less than 5% of the net profit. Details of activities shall also be 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. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year-wise expenditure should be reported 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. Training of</p>	<ul style="list-style-type: none"> • Separate fund is being allocated for implementation of the Environmental Protection measures. • The CSR initiatives initiated includes 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 07.03.2023.



	PAP's, health, piped drinking water and school facilities as desired by Gram Panchayats to be provided. All 108 PAP's and affected landless laborers shall be given employment during construction and subsequently absorbed in the power plant.	
37	Project proponent shall also ensure the availability of adequate pastureland for cattle feed after acquisition of land for power plant. Project proponent shall also facilitate Gram Panchayats for development of alternative pasture land for cattle feed in the villages as per demand of concerning Gram Panchayats.	There is no R & R activities involved in this project.
38	The issuance of this environmental clearance does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights nor any infringement of Central, State or Local laws or regulations.	Agreed to comply.
37	The 108 PAP's 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 and Forests, Government of India, Bhopal.	There is no R & R activities involved in this project.
38	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 interest of environmental protection, change in the project profile or non-satisfactory implementation of the stipulated conditions etc.	Agreed to comply
39	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 be seen at website of the Ministry of Environment and Forests at www.envfor.nic.in and website of SEIAA, Chhattisgarh at www.seiaacg.org	Agreed to comply.
40	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 and Forests, Government of India, Bhopal	Half yearly compliance report of Air, Water, Noise, fugitive emission, etc submitted regularly to Chhattisgarh Environment Conservation Board, Raipur, Regional Office, Chhattisgarh Environment Conservation Board, Korba, SEIAA, Chhattisgarh and Regional Office, Ministry of Environment and Forests, Government of India, Bhopal.



41	Regional Office of 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 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 Regional Office of Ministry of Environment and Forests, at Bhopal on time.
42	The project authorities shall inform the Regional Office as well as the SEIAA, Chhattisgarh regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant	The project management has informed the date of financial closure and start of the land development activities to the Authorities.
43	Full Cooperation shall be extended to the scientists/Officers from SEIAA, Chhattisgarh, Ministry of Environment and Forests, Government of India/Regional Office, Ministry of Environment and Forests, Government of India, Bhopal/the CPCB/ the Chhattisgarh Environment Conservation Board who would be monitoring the compliance of environment status	Agreed to comply
44	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
45	In case of any deviation or alteration in the proposed project from those submitted to this 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	Agreed to comply
46	The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the State Government.	Agreed to comply
47	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 Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	Agreed to comply
48	Any appeal against this environmental clearance shall be 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

