



ACB (INDIA)LIMITED

2x50 MW POWER PLANT Village - Ratija

Post - Nonbirra, Teh. - Pali, Distt. - Korba (C.G.)

PIN No. - 495 449, Tel./Ph. - 07815 256677, 256609

Ref: ACBIL/ENV/2023/ 35

Dated: 25.05.2023

To

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

Sub: M/s. ACB (India) Limited, formerly known as M/s. Spectrum Coal & Power Ltd.
Coal - Washery Reject & Coal Based Thermal Power Plant of capacity 1X50 MW
(Phase I) at Village - Ratija, Tehsil - Pali, District - Korba, Chhattisgarh- 495446 -
**Submission of Six monthly compliance report for the period Oct 2022 to
March 2023- reg.**

Ref: Environmental Clearance no. J-13011/30/2007- IA.II (T), dated 31.12.2007.

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.



Address for Correspondence : D - 24, Urja Nagar, Behind SECL, Guest House, P.O. - Gevra, Distt. - Korba - 495452, Tel/Fax : 07815 274447

Corporate Office : 7th Floor Corporate Tower Ambience Mall, NH - 8 Gurgaon - 122001, Tel.- 0124-2719000,

Regd Office : C-102 New Multan Nagar, Rohtak Road, New Delhi - 100 056 (India)

CIN No: - U10102DL1997PLC085837,



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2x50 MW POWER PLANT Village - Ratija

Post - Nonbirra, Teh. - Pali, Distt. - Korba (C.G.)

PIN No. - 495 449, Tel./Ph. - 07815 256677, 256609

Ref: ACBIL/ENV/2023/ 36

Dated: 25.05.2023

To

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

Sub: M/s. ACB (India) Limited, formerly known as M/s. Spectrum Coal & Power Ltd. Coal - Washery Reject & Coal Based Thermal Power Plant of capacity 1X50 MW (Phase II) at Village - Ratija, Tehsil - Pali, District - Korba, Chhattisgarh- 495446 - **Submission of Six monthly compliance report for the period Oct 2022 to March 2023- reg.**

Ref: EC no.1088/SEIAA- CG/EC/TPP/KOR/98/13, dated 29.11.2013.

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.

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CIN No: - U10102DL1997PLC085837,



Krishnamoorthy Govindan <krishnamoorthy.govindan@acbindia.com>

Six Monthly EC Compliance Report (Oct 2022 to March 2023) ACBIL 2X50 MW TPP-Reg.

1 message

Krishnamoorthy Govindan <krishnamoorthy.govindan@acbindia.com>

Thu, Jun 1, 2023 at 6:49 PM

To: IRO Raipur <iro.raipur-mefcc@gov.in>, seiaacg@gmail.com, cpcb.bhopal@gov.in, 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, 1X50 MW Thermal Power Plant at Village-Ratija, Tehsil-Pali, 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

-  Member Secretary,CECB,Raipur_Phase II.PDF
-  Member Secretary,SEIAA,Raipur_Phase II.PDF
-  MoEF & CC,IRO,Raipur_Phase II.PDF
-  Regional Director, CPCB, Bhopal_Phase II.PDF
-  Regional Officer,CECB,Korba_Phase II.PDF
-  Member Secretary,CECB,Raipur_Phase I.PDF
-  Member Secretary,SEIAA,Raipur_Phase I.PDF
-  MoEF & CC,IRO,Raipur_Phase I.PDF
-  Regional Director, CPCB, Bhopal_Phase I.PDF
-  Regional Officer,CECB,Korba_Phase I.PDF



Monitoring Report.pdf
23830K



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

ACB (India) Limited
(Formerly known as M/s. Spectrum Coal & Power Ltd)
Village - Ratija, Tehsil - Pali,
District - Korba, Chhattisgarh- 495446.



ACB (India) Limited
Village - Ratija, Tehsil - Pali,
District - Korba, Chhattisgarh- 495446

Compliance status of the conditions under Environmental Clearance
F.No. J-13011/30/2007- IA.II (T), dated 31.12.2007.

S.No	Conditions stipulated in EC	Status of Compliance
1	The land requirement shall be restricted in accordance with the norms prescribed by CEA and should not, in any case, be more than 30 ha for all the activities/facilities of the power project.	Land requirement has been optimized and limited as per CEA. An area of 79 ha has been devoted for Unit I & II, 50 MW TPP project. Enclosed approved layout drawing as Annexure-1 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
2	Sulphur content in coal and middling's to be used as fuel shall not exceed 0.36% and 0.29% respectively	Sulphur content in the fuel is limited as per the guidelines specified. Coal test report enclosed as Annexure-2 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
3	The height of the stack shall be as per the standards prescribed under the Environment (Protection) Act, 1986. In this regard or 90 m, whichever is more with continuous online monitoring system? The exit velocity of the flue shall not be less than 20 m/sec.	<p>The stack height is 90 meters is constructed, as per standards prescribed under EPA Act. Enclosed stack photos as Annexure-3. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p> <p>CEMS - Continuous Stack Emission Monitoring System is installed. Online CEMS data is being transfer to server of CECB and CPCB.</p> <p>Website: https://enviscecb.org/ User id: Spectrum Password: Spectrum_CECB</p> <p>The exit velocity of the flue is within limit. We have engaged NABL accredited Lab for conducting third party monitoring and report submitted periodically to respective government departments. Enclosed report as Annexure-4. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p>
4	High efficiency Electrostatic Precipitators (ESPs) shall be installed to limit particulate emission to 50 mg/Nm ³ .	ESP of 99.8% efficiency is installed to limit the particulate emission to <50 mg/Nm ³ . Enclosed ESP Photographs as Annexure-5 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
5	Low NOx burners shall be provided.	The project has CFBC Boiler Technology which does not promote the formation of NOx due to regulated temperatures controlled well under 800-900 deg.



		Centigrade.
6	CFBC Technology shall be adopted.	CFBC technology is adopted in the project.
7	Dust extraction and dust suppression system and water sprinklers shall be provided for controlling fugitive dust during coal transportation, in coal storage & handling area and other vulnerable areas of the plant.	Dust extraction and dust suppression system with water sprinklers has already been provided for minimize and control to fugitive dust emission during coal transportation, coal storage & handling area and other vulnerable areas of the plant. Enclosed photographs as Annexure-6 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
8	Water requirement shall not exceed 6000 m ³ /day, which will be met from Lilagarh River. Necessary permission for drawl of requisite quantity of water shall be obtained from Competent Authority. No ground water shall be extracted for any activity of this project.	The requisite quantity of water for the power plant operations is maintained below 6000 m ³ /day. This quantity has already been allocated by Water Resource Department (WRD) Chhattisgarh from Lilagarh River. No ground water is used in this project. Enclosed water allotment letter, water agreement and water balance as Annexure-7 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
9	Closed Circuit Cooling System with cooling towers shall be installed.	Closed Circuit Cooling System with a COC of 6 has been installed to conserve water. Enclosed photographs as Annexure-8 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
10	Treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. No effluents shall be discharged outside the plant boundary.	Plant has operating on zero discharge concepts. Treated effluent water is utilized for the development of gardening, sprinkling, and others. No effluent water is being discharge outside of the plant premises. Enclosed ETP and process details as Annexure-9 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
11	Rainwater harvesting shall be practiced. A detailed scheme for rain water harvesting to recharge the ground water aquifer shall be prepared in consultation with Central ground Water Authority/State Ground Water Board and a copy of the same shall be submitted within three months to this Ministry.	Rainwater harvesting systems is already constructed for recharge the ground water. Enclosed rain water harvesting pits, ponds photos as Annexure-10, 10 a, b and c . Already submitted to MoEF &CC, Raipur dated 07.03.2023
12	Leq of Noise level shall be limited to 75dBA and regular maintenance of equipment's should be undertaken. For people working in high noise areas, personal protection devices should be provided.	Noise levels are limited to 75 dB (A) and regular maintenance of equipment's is undertaken. Personal protective equipment's like earmuffs/earplugs are provided to the work force engaged in high noise generating areas. We have engaged NABH accredited Lab for conducting third party monitoring and report are well within limit as Annexure-11 . Already submitted to



13	Dry fly ash collection system shall be provided. The project authorities should adhere to the provision stipulated in the fly ash notification of September, 1999 and as amended in August, 2003 in regard to fly ash utilization.	MoEF &CC, Raipur dated 07.03.2023 Dry fly ash evacuation system is provided in the plant. The dry ash is collected in silos for onward disposal. The project adheres to all the provision stipulated in the fly ash notification as amended in regard to fly ash utilization. Enclosed silo photos as Annexure-12 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
14	A greenbelt shall be developed with local species around the plant boundary with tree density of 1500-2000 trees per ha covering 1/3 rd of the total project area.	A thick green belt has been developed all around the plant premises and vacant areas maintaining a density of 2000 trees per hectares covering 1/3 rd of the project area. Enclosed greenbelt development details as Doc- 6 and 6.1 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
15	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	First aid and sanitation arrangements are made available for the drivers and other contract workers. Enclosed first aid details as Annexure-13 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
16	Regular monitoring of ambient air quality shall be carried out in and around the power plant and records maintained. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with the State Pollution Control Board. Periodic reports shall be submitted to the Regional Office Bhopal of this Ministry at Bhopal.	Regular monitoring of ambient air quality has carried out in and around the plant area and records maintained. Ambient air quality monitoring report is being regularly submitted to regulatory authority. The location of the monitoring stations and frequency of monitoring is decided in consultation with CECB, Raipur. Periodic reports are submitted to Regional Office of Ministry of Environment and Forests, Government of India. As Annexure-14 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
17	The project proponent shall advertise in at least two local newspapers widely circulated in region around the project, one of which shall be in the vernacular language of the locality concerned within seven days for the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter re available with State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at http://envfor.nic.in	We have already published newspaper.
18	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	A separate environment management cell with qualified staff is set up for implementation of the stipulated environmental safeguards. Enclosed as Doc-09 . Already submitted to MoEF &CC.



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		Raipur dated 07.03.2023
19	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to this Ministry, the Regional Office, and the CPCB/SPCB.	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards are being submitted on a half yearly basis to the Regional Office of MoEF and the SPCB.
20	Regional Office of the Ministry of Environment & Forests located at Bhopal will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to time shall be forwarded to the Regional Office for their use during monitoring.	Noted and complied.
21	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure shall be reported to the Ministry.	Separate funds are allocated for implementation of environmental protection measures. The funds earmarked for the environment protection measures are not diverted for other purposes.
22	Full corporation shall be extended to the Scientists/Officers from the Ministry/Regional Office of the Ministry at Bhopal/the CPCB/the SPCB who would be monitoring the compliance of environmental status.	Noted and complied.
23	The Ministry reserves the right to revoke the clearance if the conditions stipulated are not implemented to the satisfaction of the Ministry	Noted.
24	The environment clearance accorded shall be valid for a period of five years to start the production operation by the power plant	Noted we will comply with the condition.
25	In case of any deviation or alteration in the project proposed from that submitted to this ministry for clearance a fresh reference shall be to the Ministry to assess the adequacy of the conditions imposed and to incorporate additional environmental measures required if any.	No deviation or alteration is done to the project.



26	<p>The above stipulations shall be enforced along with others as under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1986, The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989, Hazardous Wastes (Management and Handling) Rules, 1989, the Public Liability Insurance Act, 1991.</p>	<p>Clearance under the Water (Prevention and Control of Pollution) Act, 1974, the Air ((Prevention and Control of Pollution) Act, 1986 have been obtained as Consent to Establish and Consent to Operate. There is no Manufacture, Storage and Import of Hazardous Chemicals in the project. Clearance under Hazardous Wastes (Management and Handling) Rules, 1989 has been obtained. The Public Liability Insurance under Act, 1991 is obtained.</p>
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ACB (India) Limited
Village - Ratija, Tehsil - Pali,
District - Korba, Chhattisgarh- 495446

Compliance status of the conditions under Environmental Clearance
F.No. 1088/SEIAA- CG/EC/TPP/KOR/98/13 dated 29.11.2013.

S. No.	Specific Conditions	Detailed compliance status																				
1	<p>The acquisition of land for the Coal Washery Reject Based Power Plant of capacity 1x50 MW Phase-II, Total (after expansion) – 100 MW shall be restricted to maximum 79.0 ha with the following break-up:</p> <table><tr><th>Description</th><th>Area (ha)</th></tr><tr><td>Plant Area</td><td>11.5</td></tr><tr><td>Office and Colony</td><td>1.5</td></tr><tr><td>Ash Disposal Area</td><td>15.0</td></tr><tr><td>Green Belt</td><td>26.0</td></tr><tr><td>Railway Siding and Coal Stock</td><td>10.0</td></tr><tr><td>Raw Water Reservoir</td><td>10.0</td></tr><tr><td>Miscellaneous</td><td>1.0</td></tr><tr><td>Road and Common Areas</td><td>4.0</td></tr><tr><td>Total</td><td>79.0</td></tr></table>	Description	Area (ha)	Plant Area	11.5	Office and Colony	1.5	Ash Disposal Area	15.0	Green Belt	26.0	Railway Siding and Coal Stock	10.0	Raw Water Reservoir	10.0	Miscellaneous	1.0	Road and Common Areas	4.0	Total	79.0	<p>The project has been constructed as per the land use breakup specified in the Environment Clearance. Enclosed layout drawing as Annexure-1. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p>
Description	Area (ha)																					
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Road and Common Areas	4.0																					
Total	79.0																					
2	<p>The consumption of the coal washery reject shall be 0.48 MTPA which will be sourced from the existing coal washery of M/s Spectrum Coal and Power Ltd (SCPL).</p>	<p>Plant is using the coal washery rejects sourced from the existing coal washery of M/s 2x50 MW TPP of ACB (India) Limited, consumption of the washery reject coal is below 0.48 MTPA.</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 and Forests, Government of India.</p>	<p>Effluent treatment plant has been installed capacity of 0.0015 MLD and kept in good running condition all the time and failure (if any) will be immediately rectified without delay otherwise same alternate arrangement will be made. Plant have ensures the treated effluent quality within standard prescribed by Ministry of Environment and Forests, Government of India. Enclosed effluent treatment plant photographs as Annexure-2. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p>																				
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</p>	<p>Effluent generated from industrial including ash dyke is not being discharged into the river or any surface water bodies under any circumstances, and it treated effluent water is being reused wholly</p>																				



	<p>in the process/plantation. All the industrial effluent including ash dyke effluent (if any) generated shall be re-circulated/reused after proper treatment. Project proponent shall provide sewage treatment plant of adequate capacity for treatment of domestic effluent generated from township. The untreated/treated domestic effluent shall not be discharged into the river or any surface water bodies. 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. 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>	<p>the Sprinkling, horticulture and process/plantation. All the industrial effluent including ash dyke effluent generated also re-circulated/reused after proper treatment. Sewage treatment plant has been installed with adequate capacity for treatment of domestic effluent generated from Plant and township. The untreated/treated domestic effluent is not being discharged into the river or any surface water bodies. The treated domestic effluent is used for plantation. Plant has made proper arrangements of suitable drains/pipe networks to ensure adequate flow for utilization of treated effluent inside the premises. The concept of zero discharge is maintained. Proper arrangements is being made that effluents and storm water do not get mixed.</p>
5	<p>Project proponent shall provide adequate measuring arrangements for the measurement of water utilized in different categories and effluent generated before commissioning of the plant.</p>	<p>Metering arrangement system has been provided for the measurement of water utilized in different categories and effluent generation. Enclosed meter photographs as Annexure -3. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p>
6	<p>Project proponent shall provide independent and dedicated air cooled condensers with auxiliary system for each turbine unit as per the proposal submitted along with the application.</p>	<p>Independent and dedicated air cooled condensers with auxiliary system for 50 MW unit have been installed. Enclosed cooled condensers photographs as Annexure-4. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p>
7	<p>Project proponent shall provide adequate air pollution control arrangements at all point and non-point sources. 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 equipment's (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. Project proponent shall install suitable and effective air pollution control equipment's at all the transfer points, junction points etc. also. All the conveying system transfer point junction point etc. shall be covered. Closed conveying system with dust suppression</p>	<p>Air pollution control equipment's at all point and non-point source of pollution have been installed. High efficiency ESP with Fabric filter is installed to maintain an emission level of ≤ 50 mg/Nm³. Enclosed APCE photographs as Annexure-5. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p> <p>Website: https://enviscecb.org/ User id: Spectrum_CECB Password: Spectrum</p> <p>Closed conveying system along with HCS D System is used for conveying of ash to disposal area. Adequate number of Dust Suppression and Extraction System is installed. Enclosed HCS D system photographs as Annexure-5.1. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p>



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	mechanism shall be used for transport of coal			
	<table><tr><td>Particulate Matter</td><td>50 mg/Nm³ (Fifty Milligram per Normal Cubic Meter)</td></tr></table> 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 sources shall not exceed the following limit: -	Particulate Matter	50 mg/Nm³ (Fifty Milligram per Normal Cubic Meter)	Space has been kept for further retrofitting of air pollution control systems in case of further stringent of particulate matter emission limit is required.
Particulate Matter	50 mg/Nm³ (Fifty Milligram per Normal Cubic Meter)			
	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.			
8	As per the proposal submitted the project proponent should examine the feasibility of laying a railway siding for the transport of raw coal. Hence, rail transport should be attempted as per priority. In this regard, an action plan shall be submitted within three months from the issue of this letter. Road transport should be carried out only if the rail transport is totally unavoidable in case of road transport, transportation should be in covered trucks.	Not applicable this unit.		
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 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.	All the air pollution control systems along with its respective equipment's have been kept in good running condition.		
10	Regular monitoring of ground level concentration of SO ₂ , NO _x , SPM and RSPM shall be carried out in the impact Zone and records maintained. If at any stage these levels are found to be 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. Periodic reports shall be submitted to SEIAA Chhattisgarh and the Regional Office Bhopal of Ministry of Environment and Forests, Government of	Monitoring of ground level concentration of SO ₂ , NO _x , SPM and RSPM in the impact Zone and records are maintained. If at any stage these levels are found to be exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring have decided in consultation with CECB, Raipur. Periodic reports shall be submitted to SEIAA Chhattisgarh and the Regional Office of Ministry of Environment and Forests, Government of		



	India.	India. Enclosed monitoring location map as Annexure-6 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
11	Project proponent shall provide a flue stack of 90 meters height 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 20.0 Nm ³ /sec for adequate disposal of gaseous pollutants. Continuous record of exit velocity shall also be maintained and submitted to SEIAA, Chhattisgarh and Regional Office Bhopal, of Ministry of Environment and Forests, Government of India on a yearly basis. The height of other stack(s) shall not be less than 30 meters.	One flue stacks of 107 meters height with continuous online monitoring for PM, SO ₂ , and NO _x is installed. The exit velocity of the flue gases >20Nm ³ /sec. Continuous record of exit velocity is maintained and submitted to SEIAA, Chhattisgarh and Regional Office, of Ministry of Environment and Forests, Government of India on a yearly basis. Stack photos attached as Annexure 6.a . Already submitted to MoEF &CC, Raipur dated 07.03.2023 Website: https://enviscecb.org/ User id: Spectrum_CECB Password: Spectrum
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 fuel used in the project shall not exceed 0.4% and 55% respectively at any given time. Enclosed coal analysis report as Annexure-7 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
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, RPM, CO, NO _x , and SO ₂ 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 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 analyzed and submitted to the SEIAA, C.G. and Regional Office, Ministry of Environment and Forests, Government of India, Bhopal in every six months.	Four Ambient Air Quality Monitoring Stations has been installed after consultation with the CECB and taking into account the points mentioned in EC. Enclosed AAQMS photographs as Annexure-8 . Already submitted to MoEF &CC, Raipur dated 07.03.2023 The data collected is being submitted to the SEIAA, C.G. and Regional Office, Ministry of Environment and Forests, Government of India in every six months.
14	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	Necessary space is being provided for FGD. The same shall be installed if required at a later stage.



	areas, project proponent shall install flue gas de-sulphurization units immediately without any delay.	
15	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.	Separate electric metering arrangements with time totalizer for the running of pollution control devices are installed with all measures. Enclosed as Annexure-9 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
16	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 provide 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 bottom ash in conventional slurry mode in ash pond.	Plant has incorporated total ash utilization as integral part of the project. Plant is installed 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 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. ACBIL installed adequate capacity silo 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 etc. Plant has also use fly ash / bottom ash/ pond ash based products for the construction activities. Plant is adopting dry ash disposal system or high ash concentration slurry disposal system for disposal of unutilized fly ash and bottom ash in conventional slurry mode in ash pond.
17	Project proponent shall install fly ash brick/block/products manufacturing machine of adequate capacity before start of construction activities of super structure of 50 megawatt units. Project proponent shall utilize the fly ash bricks/blocks etc. manufactured by own fly ash brick/block manufacturing machine in its construction	Project proponent has installed fly ash brick/ block/ products manufacturing unit and the products are used in construction activities. Enclosed brick manufacturing unit as Annexure 10 . Already submitted to MoEF &CC, Raipur dated 07.03.2023



	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.	
18	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>The project is being adhere to the provisions stipulated in the Fly ash notification of September, 1999 and its amendment during plant operation.</p> <p>We are 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>
19	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. Adequate safety measures shall also be adopted for the ash dyke to prevent any breaching	With the implementation of High Concentration slurry disposal system water in the slurry is maintained low that the entire mass becomes a rock like structure thereby no water will be available for leaching into ground. However as a precautionary measure lining of the pond is done with impervious material. Adequate safety measures are also adopted for the ash dyke to prevent any breaching. Enclosed as Annexure-11 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
20	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 Tran boundary) Rules, 2008 (as applicable).	An authorization has been obtained from Chhattisgarh Environment Conservation Board, Raipur. We have implementing practice for the disposal of Hazardous materials as per Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2008 and amendment. Enclosed doc.11 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
21	All the internal roads shall be made pucca before commissioning of the power plant.	Roads are made pucca in the power plant and we ensure that good housekeeping is



	Good housekeeping practices shall be adopted by the project proponent.	maintained inside the plant premises. Enclosed photographs as Annexure-12 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
22	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 day time 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.	Proper action is taken in the design of the plant to control the noise pollution. Personal Protective Equipment's are provided to all personnel working in high noise level areas. We shall ensure that the Leq of noise level is maintained less than 75 dB (A) with regular maintenance of equipment. Enclosed PPEs details as Annexure-13 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
23	Project proponent shall provide appropriate arrangements to avoid air pollution, water pollution, noise pollution etc. during construction phase and during transportation of plants /machineries / equipment's /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 /equipment's /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.	Appropriate arrangements to avoid air pollution, water pollution, noise pollution etc. during construction phase and during transportation of plants/ machineries/ equipment's/ construction materials etc. is done. Regular sprinkling of water on transport roads is done. First aid and sanitation arrangements are made available for the drivers and other contract workers during construction phase of the project. First aid and sanitation facilities are provided for all non-regular workmen who would enter the plant premises. Enclosed first aid report as Annexure-14 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
24	The construction of effluent treatment plant and installation of air pollution control equipment's shall be taken up simultaneously with other civil/mechanical works of 50 megawatt units. The progress of the activities related to the project shall be submitted periodically to SEIAA, CG and Regional Office, Ministry of Environment and Forests,	ETP with capacity of 0.0015 MLD already in operation and air pollution control equipment has been installed.



	Government of India, Bhopal.	
25	<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 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. 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>	<p>Plant has provided adequate number of influent and effluent quality monitoring stations/ points in consultation with Chhattisgarh Environment Conservation Board. Regular monitoring has carried out for relevant parameters. 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. Enclosed doc.18. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p>
26	<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>Safety measures are 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 is submitted to SEIAA, Chhattisgarh and Regional office, Ministry of Environment & Forests, Government of India, Bhopal. Annexure-15. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p>
27	<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. Disaster Management plan shall be prepared to meet any eventuality in case of an accident taking place. 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>	<p>Storage facilities for auxiliary liquid fuel such as LDO and HFO/LSHS have been designed in the plant area where risk is minimum to the storage facilities. Enclosed fuel storage area photos as Annexure-16. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p> <p>Disaster Management plan is prepared to meet any eventuality in case of an accident taking place. Mock drills are conducted regularly and based on the same, modifications required, if any shall be incorporated in the DMP. Sulphur content in the liquid is less than 0.5%</p>



		Enclosed Onsite emergency plant report as Annexure-17 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
28	Adequate 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 26ha (about one third of the total plant area) shall be used for green belt development.	<p>A thick green belt is developed around the project with the broad leaf local species with a density of 1500-2000 trees per hectare as per the CPCB guidelines.</p> <p>Green belt has been developed all along the boundary of the ash pond area. Enclosed greenbelt audit report and site photographs as Doc-6. Already submitted to MoEF &CC, Raipur dated 07.03.2023</p>
29	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. 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. 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.	Plant layout has been designed with a provision of separate garland drains all along the ash dyke which carries water to the sedimentation pit. Separate storm water drains are constructed in the plant premises for the surface run off. The same will be reused for sprinkling and dust suppression after sedimentation. Enclosed garland drain photographs as Annexure-1 Already submitted to MoEF &CC, Raipur dated 07.03.2023
30	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. Project proponent shall develop rainwater harvesting structures to harvest the rain water 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 and Forests, Government of India, Bhopal. No Ground	Rainwater harvesting is constructed to harvest the rain water for utilization in the lean season as well as to recharge the ground water. Enclosed rain water harvesting recharge pit and reservoir photographs as Annexure-18 and 19 . Already submitted to MoEF &CC, Raipur dated 07.03.2023



	water shall be used for any purpose.	
31	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.	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 Environmental Management cell as Doc-9 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
32	Adequate funds shall be allocated for undertaking CSR activities (community welfare environmental developmental development activities apart from committed plantation) and in any case it shall not be less than Rs. 1.0 crores 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 and Forests, Government of India, Bhopal. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year wise expenditure should be reported to the SEIAA, Chhattisgarh and Regional Office, Ministry of Environment and Forests, Government of India, Bhopal.	Separate fund is being allocated for implementation of the Environmental Protection measures. CSR activities have already been started for nearby villages. Enclosed CSR report as Annexure-20 . Already submitted to MoEF &CC, Raipur dated 07.03.2023
33	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 posture land for cattle feed in the villages as per demand of concerning Gram Panchayats.	Noted and Complied.
34	The issuance of 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 or regulations.	Noted.
35	No change in process technology and scope of working shall be made without prior approval of SEIAA, Chhattisgarh/ Ministry of Environment & Forests, Government of India.	There is no change in the technology.
36	SEIAA, Chhattisgarh reserves the right to amend/cancel any of the conditions and make further stringent the emission/effluent limit as and when deemed necessary in the interest of environment protection, change in the project profile or non-satisfactory implementation of	Noted and complied.



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	the stipulated conditions etc.	
37	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 .	We have published already two newspapers.
38	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.	ACBIL submitting monitoring report along with statistical interpretation regularly to CECB, SEIAA and MoEF &CC-Rational office.
39	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.	Noted and Complied.
40	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.	Noted, we will comply with the condition.
41	The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the State Government. 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	Noted, we will comply with the condition.



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	there under, Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	
42	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.	Noted
43	The PAPs 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 rehabilitation and resettlement in this project; hence R&R plan not applicable.
44	Chhattisgarh Environment Conservation Board shall display a copy of the clearance letter at the Regional Office, District Trade and Industries Center and Industries Office/Tehsildar's office for 30 days	Complied.
45	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.	Noted

