

Chhattisgarh Environment Conservation Board may further stipulate stringent limit depending upon environmental conditions. Treated effluent shall be utilized either in process or for land application only. Industry shall make arrangement of suitable drains/pipe networks to ensure adequate flow for full utilization of treated effluent inside the premises. No effluent shall be discharged out side of the factory premises in any circumstance.

2. Industry shall provide proper metering arrangement for the measurement of water consumed and effluent generated.
3. Industry shall provide suitable air pollution control equipments for control of emission at all points and non point sources. Industry shall install Electro Static Precipitator of adequate capacity and efficiency not less than 99.8 % for control of particulate matter emission from boiler before start of power generation. Industry shall provide effective air pollution control equipments for the control of fugitive emissions and for the control of emission during the handling and transportation of fuel and fly ash/bottom ash etc. All junction points, transfer points and conveyor belt/conveying system shall be covered to avoid fugitive emission. The emission of particulate matter from point sources shall not exceed 100 mg / Nm³ (One Hundred Milligram per Normal Cubic Meter) under any circumstances. Chhattisgarh Environment Conservation Board may further stipulate stringent particulate matter emission limit depending upon environmental conditions.
4. The ambient air quality within the factory premises shall not exceed the standards prescribed by Board in Gazette Notification dated 25.03.1988. The ambient air quality within the premises shall not exceed the following limits: -

a	Suspended Particulate Matter	500 Micrograms/ m ³
b	Sulphur Dioxide	120 Micrograms/ m ³
c	Oxides of Nitrogen	120 Micrograms/ m ³
d	CO	5000 Micrograms/ m ³

Industry shall ensure the ground level concentration of pollutants in ambient air within standard prescribed for residential, rural areas in the nearby residential/rural areas due to establishment/ commissioning of plant.

5. Regular monitoring for the measurement of air pollutants level in ambient and emission of air pollutants from stack shall be carried out. Industry shall submit stack and ambient air quality monitoring reports to the Board regularly every month. Some of the guidelines in this regard are as below: -

- a. The monitoring of source emissions shall be done every alternate day.
 - b. The sampling of ambient air quality shall be done for 24 hours on 8 hours basis in every alternate day.
 - c. The monitoring of ambient air quality shall be done in all the directions at four stations.
6. The stack of height as per formulae $H=14(Q)^{0.3}$ (Where Q is emission rate of SO₂ in Kg/hr and H is stack height in meters) or as per notification/guidelines of Ministry of Environment & Forests, Government of India/Central Pollution Control Board based on micro meteorological data or 44 meters (which ever is more) with arrangement of stack monitoring shall be provided. The height of other stacks shall not be less than 30 meters also.
 7. Space provision shall be made in the layout and installation/retrofitting of the Flue Gas De-sulphurization (FGD) shall be carried out without any delay, if 98th percentile values for SO₂ exceed the prescribed permissible limit for sensitive areas, rural, residential and other areas, based on actual monitored field data after commissioning of the power plant.
 8. Appropriate arrangement shall be provided to meet the emission standards of SO₂ and NO_x, mercury and other toxic heavy metals to be developed by Ministry of Environment and Forests/ Central Pollution Control Board.
 9. Industry shall install separate electric metering arrangements 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/fuel supply to the generation unit and shall remain tripped till the pollution control device/devices are made functional again.
 10. The construction of effluent treatment plant and installation of air pollution control equipments shall be taken up simultaneously with other civil/mechanical works. Industry shall submit technical details (Drawing, Design Criteria, Design Treatment Capacity and efficiency etc.) and copy of work orders of effluent treatment plant and air pollution control equipments to be installed within 3 months.
 11. Industry shall take proper action to control the noise pollution. Industry shall install appropriate noise barriers to control the noise. The noise level shall not exceed the limit 75 dB(A) during the day time and 70 dB(A) during the night time within the plant premises. Adequate

measures shall be taken for control of noise levels below 85 dB(A) in the work environment.

12. All internal roads shall be black topped (pucca) before commissioning of the plant. Good house keeping practices shall be adopted by the Industry.
13. Industry shall provide safe and scientific arrangement for collection, transportation and disposal of all solid wastes and sludges. Industry shall obtain authorization from Board for management and handling of hazardous wastes (if any) as per Hazardous Wastes (Management and Handling) Rules, 1989 (as amended).
14. Industry shall adopt dry ash extraction and dry ash disposal system. Industry shall incorporate total ash utilization as integral part of the project. Ash generated from plant shall not be stored on land in open areas in any circumstances. The ash generated shall be stored in closed silos only. The ash generated shall be collected in dry form in storage silos as temporary storage and it shall be utilized 100% for other beneficial uses such as brick making, road construction, cement making etc. Industry shall provide ash storage silos of sufficient capacity so that total storage capacity of silos shall not be less than 8 days. If at any point of time all the storage silos completely filled with ash, then in that case industry shall shut down the power plant till such time the ash disposed to other beneficiaries uses. All the fuel (Rice Husk/Coal) shall be stored in closed shed.
15. Industry shall follow the guidelines, notification etc. for utilization of fly ash/bottom ash issued by Ministry of Environment and Forests, Government of India / Central Pollution Control Board/ State Government /Chhattisgarh Environment Conservation Board from time to time. Industry shall abide by the decisions taken by Ministry of Environment and Forests, Government of India / Central Pollution Control Board/State Government/Chhattisgarh Environment Conservation Board from time to time regarding use of fly ash/bottom ash.
16. The quality of fuel used shall confirm to the standards prescribed by Ministry of Environment and Forests, Government of India / Central Government / Central Pollution Control Board/State Government/ Chhattisgarh Environment Conservation Board.
17. Industry shall adopt rainwater-harvesting technique in the project area and residential area (if any) for recharge of ground water. Industry shall develop rainwater-harvesting structures to harvest the rainwater for

utilization in the lean season as well as to recharge the ground water table.

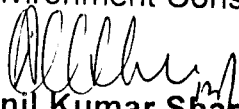
18. Extensive tree plantation with local plant species at all around the factory premises and in the open areas available within the factory premises shall be carried out. At-least 10 - 15 meters wide green belt of local species shall be developed along the premises. Industry shall abide by the decisions taken by Ministry of Environment and Forests, Government of India / Central Pollution Control Board/ State Government /Chhattisgarh Environment Conservation Board from time to time in this regard. Industry shall not cut down the trees available in the premises for establishment of power plant without obtaining permission from competent authority.
19. Garland drains with appropriate check dams shall be provided all along the fuel/solid wastes storage areas to avoid any possibility of erosion during rain. Garland drain (size, gradient & 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. The surface run-off shall be de-silted through a series of check dams and drains before re-use/disposal.
20. Industry shall use fly ash brick, fly ash block and fly ash based products in the construction/repairing activities. Industry shall also use fly ash for filling low lying areas within plant premises as per guidelines of Ministry of Environment and Forests, Government of India / Central Government/ Central Pollution Control Board/State Government/Chhattisgarh Environment Conservation Board.
21. Rapid Environmental Impact Assessment report shall be submitted within 06 months or before commissioning of the plant (whichever earlier). Comprehensive Environmental Impact Assessment (EIA) report covering one year data (4 seasons) shall be submitted to the Board within 15 months from date of commissioning of plant.
22. Industry shall establish an environmental management cell to carryout function relating to environmental management under the supervision of senior executive who is directly reporting to the head of organization. Industry shall setup laboratory facility for collection and analysis of environmental samples under the supervision of competent technical personnel.



23. Necessary fund shall be provided for implementation of the above mentioned conditions and conditions to be incorporated in the 'consent to operate' of the Board and for environmental safeguards. The funds earmarked for environmental protection measures shall be kept in separate account and not diverted for any other purpose.
24. The total capital investment on all capital works including land, building/plant/machinery and equipments etc. for proposed 2.5 Megawatt Co-Generation Captive Power Plant shall not exceed Rs. 14.25 Crores under any circumstances. In case of violation of any provision of E.I.A. Notification dated 27/01/1994 (as amended on), this permission shall be treated as null & void and industry shall obtain Environmental Clearance from Ministry of Environment and Forests, Government of India.
25. The issuance of this permission of Board 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.
26. Industry shall follow any other conditions given at the time of grant of consent under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981.
27. Board reserves the right to amend/cancel any of the above conditions and add new conditions 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.

The consent (for operation) as required under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 shall be granted to your industry after fulfillment of all the conditions mentioned above. For this purpose you shall have to make an application to this Board in the prescribed Performa at least two months before the expected date of commissioning of your industry. The applicant shall not without valid consent (for operation) of the Board bring into use any out let for the discharge of effluent and gaseous emission.

For & on behalf of
Chhattisgarh Environment Conservation Board


(Anil Kumar Sharma)
Member Secretary*

Chhattisgarh Environment Conservation Board
Raipur (C.G.)

Endt. No.

/TS/CECB/2005

Raipur, Dated:

Copy to: -

1. Chief Engineer (Commercial), Chhattisgarh State Electricity Board, Raipur, for information and necessary action please. The power supply to the unit shall be released only after submission of the copy of "Consent to Operate" issued by Chhattisgarh Environment Conservation Board, Raipur.
2. Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board, Raipur.


(Anil Kumar Sharma)
Member Secretary

Chhattisgarh Environment Conservation Board
Raipur (C.G.)