

**STATE POLLUTION CONTROL BOARD, ODISHA**

[DEPARTMENT OF FOREST & ENVIRONMENT, GOVERNMENT OF ODISHA]

A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012

Phone-0674-2564033 / EPABX : 2561909/2562847

E-mail: paribesh1@ospcboard.org / Website: www.ospcboard.org**CONSENT ORDER**No. 11822 / IND-I-CON-6306Dt. 01-10-2018

Sub : **Consent for discharge of sewage and trade effluent under section 25/26 of Water(P&CP) Act, 1974 and for existing/new operation of the plant under section 21 of Air(P&CP) Act, 1981.**

Ref : Your online application **ID No.1925816, dtd. 02.12.2017**

This consent to operate order is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to

Name of the Industry M/s. Bhushan Energy LimitedName of the Occupier & Designation Sri Shankar Batra, DirectorAddress At-Ganthigadia, Po-Nuahata, Via-Banarapal, Dist-Angul-759 128This consent order is valid for the period **up to 31.03.2019**

This consent order is valid for the product quantity, specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.

A. Details of Products Manufactured

Sl. No.	Product	Quantity
01.	Electricity (300 + 185) MW	485 MW

B. Discharge permitted through the following outlet subject to the standard

Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr	Pre-scribed Standard									
01.	DM Plant blow down	To be recycled completely	----	/									
02.	Cooling water	To be recycled completely	----										
03.	Domestic water STP outlet	To be used for plantation/ gardening	----	<table border="1"> <tr> <td>pH</td> <td>6.5-9.0</td> </tr> <tr> <td>BOD</td> <td>less than 30mg/l</td> </tr> <tr> <td>TSS</td> <td>less than 100mg/l</td> </tr> <tr> <td>Fecal Coliform (FC) (most probable number per 100 millilitre, MPN/100ml)</td> <td>less than 1000</td> </tr> </table>		pH	6.5-9.0	BOD	less than 30mg/l	TSS	less than 100mg/l	Fecal Coliform (FC) (most probable number per 100 millilitre, MPN/100ml)	less than 1000
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C. Emission permitted through the following stack subject to the prescribed standard.

Chimney Stack No.	Description of Stack	Stack height (m)	Quantity of emission (m ³ /hr)	Prescribed Standard (mg/Nm ³)			
				PM	SO ₂	NO _x	Hg
1.	CFBC stack-1	125	417600	50	600	300	0.03
2.	CFBC stack-2	125	417600	50	600	300	0.03
3.	Stack attached to ESP of 185 MW PP	170	2859912	50	600	300	0.03

D. Disposal of solid waste permitted in the following manner

Sl.No.	Type of Solid waste	Quantity generated (TPD)	Quantity to be reused on site (TPD)	Quantity to be reused off site (TPD)	Quantity disposed off (TPD)	Description of disposal site.
1.	Fly Ash & Bottom Ash	5733	---	---	5733	Ash generated shall be utilized for fly ash brick manufacturing, rest shall be disposed for a) Filling of abandoned mine quarry (Quarry No. IV of M/s. Jagannath OCP, MCL, Talcher).



- not fit for the domestic use/bathing.
14. Storm water shall not be allowed to mix with the trade and/or domestic effluent on the upstream of the terminal manholes where the flow measuring devices will be installed.
 15. The applicant shall maintain good house-keeping both within the factory and the premises. All pipes, valves, sewers and drains shall be leak-proof. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas.
 16. The applicant shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems install or used by him to achieve with the term(s) and conditions of the consent.
 17. Care should be taken to keep the anaerobic lagoons, if any, biologically active and not utilized as mere stagnation ponds. The anaerobic lagoons should be fed with the required nutrients for effective digestion. Lagoons should be constructed with sides and bottom made impervious.
 18. The utilization of treated effluent on factory's own land, if any, should be completed and there should be no possibility of the effluent gaining access into any drainage channel or other water courses either directly or by overflow.
 19. The effluent disposal on land, if any, should be done without creating any nuisance to the surroundings or inundation of the lands at any time.
 20. If at any time the disposal of treated effluent on land becomes incomplete or unsatisfactory or create any problem or becomes a matter of dispute, the industry must adopt alternate satisfactory treatment and disposal measures.
 21. The sludge generated from treatment units shall be dried in sludge drying beds and the drained liquid shall be taken to equalization tank of treatment plant.
 22. The effluent treatment units and disposal measures shall become operative at the time of commencement of production.
 23. The applicant shall provide port holes for sampling the emissions and access platform for carrying out stack sampling and provide electrical outlet points and other arrangements for chimneys/stacks and other sources of emissions so as to collect samples of emission by the Board or the applicant at any time in accordance with the provision of the Act or Rules made therein.
 24. The applicant shall provide all facilities and render required assistance to the Board staff for collection of samples / stack monitoring / inspection.
 25. The applicant shall not change or alter either the quality or quantity or rate of emission or install, replace or alter the air pollution control equipment or change the raw material or manufacturing process resulting in any change in quality and/or quantity of emissions, without the previous written permission of the Board.
 26. No control equipments or chimney shall be altered or replaced or as the case may be erected or re-erected except with the previous approval of the Board.
 27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner to meet the prescribed standards by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
 28. The stack and ambient monitoring system installed by the applicant shall be opened for inspection to this Board at any time.
 29. There shall not be any fugitive or episodal discharge from the premises.
 30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
 31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
 32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
 33. The industry has to ensure that minimum three varieties of indigenous species of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
 34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as no to cause fugitive emission, dust problems through leaching etc., of any kind.
 35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
 - i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
 - ii) Controlled incineration, wherever possible in case of combustible organic material.
 - iii) Composting, in case of bio-degradable material.
 36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
 37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to



- above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
38. The applicant, his/heirs/legal representatives or assignees shall have no claim whatsoever to the condition or renewal of this consent after the expiry period of this consent.
39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
42. The industry shall comply to all the conditions stipulated under Charter on Corporate Responsibility for Environmental Protection (CREP) guidelines in a time bound manner as envisaged there in. (if applicable)
43. The industry shall comply to the conditions stipulated in CTE order issued by Odisha State Pollution Control Board.
44. The industry shall abide by E(P) Act, 1986 and Rules framed there-under
45. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the adequate amount within the period stipulated by the Board the consent order will be revoked without prior notice.
46. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate

**GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES,
AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).**

1. The applicant shall analyse the effluent / emissions and Ambient Air Quality every month through approved laboratory for the parameters indicated in TABLE- 'B', 'C' & Part -'B' as mentioned in this order and shall furnish the report thereof to the Board on monthly basis.
2. The following information shall be forwarded to the Member Secretary on or before 10th of every month.
 - a) Performance / progress of the treatment plant.
 - b) Monthly statement of daily discharge of domestic and/or trade effluent.
3. Non-compliance with effluent limitations
 - a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification.
 - i) Causes of non-compliance
 - ii) A description of the non-compliance discharge including its impact on the receiving waters.
 - iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
 - iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
 - v) Steps to be taken by the applicant too prevent the condition of non-compliance.
 - b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
 - c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.
4. Proper housekeeping shall be maintained inside the factory premises including process areas by a dedicated team.
5. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in

a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.

6. The industry shall engage dedicated qualified manpower to ensure continuous and effective operation of online stack / Ambient Air Quality / Effluent monitoring stations for maintenance of database, real time data transfer to SPCB server, data analysis and co-ordination with concerned personnel of process units for taking corrective measures in case of non-compliances and to respond to the instructions of SPCB in this matter.

F **SPECIAL CONDITIONS**
F1 **(Air Pollution Control)**

1. All air pollution control devices shall be operated and maintained properly so that, the particulate matter emission from stack attached to ESPs of the Boiler shall not exceed 50 mg/Nm³.
2. The unit should develop more and more areas with plantation and proper landscaping.
3. Acoustic enclosure shall be provided around the primary and secondary air fans in the ESP area.
4. All the online continuous stack emission monitoring systems (CEMS) for measurement of particulate matter and gaseous pollutants shall be operated effectively and uninterruptedly and the online monitoring data so generated shall be transmitted to SPCB and CPCB server on a continuous basis.
5. As per the Notification of MoEF & CC dtd. 07.12.2015, it is required to comply with the revised emission standard in respect of Particulate Matter (PM), Sulphur Dioxide (SO₂), Oxide of Nitrogen (NO_x), Mercury (Hg) and water consumption with the adoption of appropriate technology.
6. All the online continuous ambient air quality monitoring stations (CAAQMS) shall be operated effectively and uninterruptedly and the online monitoring data so generated shall be transmitted to SPCB and CPCB server on a continuous basis.
7. Steps shall be taken for regular monitoring of Mercury (Hg) in the stack of boilers and submit data to the Board.
8. The unit shall provide low NO_x burners to reduce NO_x emission to keep the level within the prescribed standard by MoEF & CC vide Notification dtd. 07.12.2015.
9. Steps shall be taken for installation of Flue Gas Desulphurisation (FGD) system in future if required to keep the SO₂ level within 600mg/Nm³ to conform the MoEF & CC Notification dtd. 07.12.2015. This shall also include management and disposal of effluent / solid waste to be generated from FGD system.
10. The unit shall install adequate dust extraction system as well as dust suppression system at all potential dust generating points to control fugitive dust emission and the ambient air quality inside the factory premises shall conform to the National Ambient Air Quality standard.



11. Proper dust extraction system and dry fog system shall be installed in the coal handling plant to control fugitive emission.
12. Adequate water sprinkling arrangement shall also be made at coal handling area as stand by measures to control generation of fugitive emission.
13. All the internal roads of the unit shall be black topped / concreted. Fixed type water sprinklers shall be provided along the internal roads to control generation of fugitive emission.
14. Proper housekeeping shall be maintained by a dedicated team.
15. Separate energy meter shall be installed for all the pollution control equipments and the records shall be maintained for verification of the Board from time to time.
16. All raw material, product and waste material shall be transferred through covered vehicles without any spillage or leakages on the way, in case any accidental spillage on the road, waste shall be lifted by the industry and suitably disposed off and to be lifted by the industry and suitably disposed off in designated solid waste dumping area.
17. Appropriate devices like pneumatic dust handling system/ Pug mill shall be provided at the hoppers of ESPs and pulse jet bag filters for continuous evacuation of dust from the hoppers without creating fugitive emission near the ESP and bag filter area. The collected dusts from air pollution control equipments shall be utilized or disposed off at designed land fill area. Until capping of land fill, the dust shall be kept in wet condition with water sprinklers to avoid re-entrainment into the surrounding area due to wind.
18. Ambient air quality shall conform to the National Ambient Air Quality standards as prescribed under E (P) Rules, 1986.
19. The green belt of adequate width and density preferably with the local species along the periphery of the plant shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green cover. The proponent shall ensure the maintenance of green belt throughout the year and for all time to come. It is advised that, they may engaged professionals in this field for creation and maintenance of the green belt.
20. The unit shall submit fly ash utilization status to the Board annually and shall comply to the provisions of revised fly ash Notification No. SO.254(E), dt. 25.01.2016 of MOEF, Govt. of India.
21. Appropriate measures like provision of water sprinkling or soil covering shall be made over the exposed dry surface of the ash dump sites to prevent dust nuisance due to wind action. Dust suppression measures shall also be provided

- where construction activities are undertaken at ash pond area to prevent dust nuisance.
22. Supply of fly ash to Brick Manufacturing units shall be done on free of cost. Further, transportation cost of fly ash within 100km radius of your plant shall be borne by you or a subsidy of Rs.150/- per ton of fly ash shall be provided to all the fly ash brick, tile, road construction or other fly ash based construction materials manufacturing units or for use in road making if utilizing your fly ash.
 23. The industry shall comply all the conditions stipulated in Consent to Establish orders issued Board and Environmental clearance issued by State Environment Impact Assessment Authority (SEIAA).
 24. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.
 25. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate.

F-2 Water Pollution Control

1. Specific water consumption shall be limited within 3.5m³/MWh as per MoEF & CC vide Notification dtd. 07.12.2015.
2. Under no circumstances there shall be any discharge of effluent to outside the factory premises.
3. The effluent and surface run off shall be treated in the new effluent treatment plant. The treated effluent shall be completely reused after comply to prescribed standard.
4. All the cooling water shall be completely re-circulated.
5. Wastewater generated from leakages, blow down and D.M. plant shall be treated individually to meet the prescribed standard of effluent discharged to inland surface water and stored in a common basin (i.e. guard pond) for utilization for plantation, dust suppression ash handling and green belt purpose inside the factory premises. Lining shall be provided in guard pond to prevent any seepage into ground to avoid ground water contamination.
6. All the safety measures applicable in mines as per DGMS shall be implemented.
7. The drainage network should be designed in such a manner that, all surface run off, and waste water from the plant area should pass through the Effluent Treatment plant.
8. Concrete parapet wall of adequate height should be provided all along the concreted drains on its both the sides to prevent entry of dust/ash from the road and work zone into the drainage system. All the industrial drains shall be cleaned regularly.
9. The industry shall abide by E(P) Act, 1986 and Rules framed thereunder.