

# MAHARASHTRA POLLUTION CONTROL BOARD

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RED/LSI

Consent No. BO/JD(APC)/ EIC No. NG-9474-13/R/CC-862

Date: 28/01/2014

Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management, Handling & Trans Boundary Movement) Rules 2008.

[To be referred as Water Act, Air Act and H W (M, H & TM) Rules respectively].

CONSENT is hereby granted to

M/s. Varam Bio Energy (P) Ltd.,  
(Biomass based Power Plant),  
Plot No. A-20/A-20 P, MIDC Rajegaon,  
Tal-Lakhni, Dist- Bhandara.

located in the area declared under the provisions of the Water Act, Air Act and Authorization under the provisions of H W (M, H & TM) Rules subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to Operate is granted for a period up to - 31.08.2014.

2. The Consent is valid for the manufacture of:-

Sr. No.	Product	Maximum Quantity
1)	Electricity Generation (Biomass based Power Plant)	10 MW

3. CONDITIONS UNDER WATER (Prevention and Control of Pollution) ACT, 1974:

(i) The quantity of trade effluent from the factory shall not exceed 679.2 m<sup>3</sup>/day.

(ii) The quantity of sewage effluent from the factory shall not exceed 1.9 m<sup>3</sup>/day.

(iii) **Trade Effluent Treatment:** The applicant shall provide comprehensive treatment system consisting of primary / secondary and/or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards:

The industrial effluent arising from various sections of Power Plant shall be given such treatment either collective or individually as the site condition permits that the final quality of effluent shall have following character standards:

a) **Condenser Cooling Water:**

1)	pH	Between 6.5 to 8.5
2)	Temperature	Not to exceed 5 Degree C. Higher than the intake water temperature.
3)	Free available Chlorine	Not to exceed 0.5 mg/l

b) **Boiler Blow down:**

1)	Suspended Solids	Not to exceed 100 mg/l.
2)	Oil & Grease	Not to exceed 20 mg/l.
3)	Copper (Total)	Not to exceed 1 mg/l.
4)	Iron (Total)	Not to exceed 1 mg/l.

c) **Cooling Tower Blow down:**

1)	Free available Chlorine	Not to exceed 0.5 mg/l.
2)	Zinc	Not to exceed 1 mg/l.
3)	Chromium (Total)	Not to exceed 0.2 mg/l.
4)	Phosphate	Not to exceed 5 mg/l.

d) **D.M. Plant Effluent:**

1)	PH	Between	5.5 to 9
2)	BOD 3 days 27 Deg. C.	Not to exceed	30 mg/l.
3)	COD	Not to exceed	250 mg/l.
4)	Suspended Solids	Not to exceed	100 mg/l.
5)	Oil & Grease	Not to exceed	10 mg/l.
6)	TDS	Not to exceed	2100 mg/l.

(iv) **Trade Effluent Disposal:** The total treated effluent shall be recycled/reused for ash handling and dust suppression etc and industry shall achieve zero discharge.

(v) **Sewage Effluent Treatment:** The applicant shall provide comprehensive treatment system as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards.

(1)	Suspended Solids	Not to exceed	100 mg/l.
(2)	BOD 3 days 27 C.	Not to exceed	100 mg/l.

(vi) **Sewage Effluent Disposal:** The treated domestic effluent shall be recycled/ reused for ash handling and dust suppression etc.

(vii) **Non-Hazardous Solid Wastes:**

Sr.No.	Type of waste	Quantity	Treatment	Disposal
1)	Fly Ash	56.7 MT/day	---	Should be send to cement Manufacturer & dispose as per Govt. of India Guidelines / Notification, vide No. SO/763(E), dtd 14-09-1999.

(viii) **Other conditions:**

- The industry should monitor effluent quality regularly.
- Green Belt a forestation shall be done up to 33% on available open space land.
- The firm shall provide continuous flow meter for the measurement of the flow of the effluent at the inlet and outlet.
- Industry shall adopt clean technology for cooling water treatment.
- Industry shall provide dry fly ash handling & collection system and utilize the fly ash as per the fly ash notification of the Govt. of India.
- Transportation of coal & fly ash shall be by closed system, Conveyor system exclusively.
- Fly ash shall be 100% utilized within six years as per fly ash Notification.
- The storage of coal/other raw material shall be in closed shed only.

4. The applicant shall comply with the provisions of the Water (Prevention Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and Rules there under:

The daily water consumption for the following categories is as under:

(i)	Domestic	...	96.0	CMD
(ii)	Industrial Process generating Bio-degradable waste water	...}	...	CMD
(iii)	Industrial Process generating Non-biodegradable waste water	...}	...	CMD
(iv)	Cooling water, Boiler, DM Plant,...		1502.0	CMD
(v)	Gardening		...	CMD

The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act which is also available on MPCB website at <http://mpcb.gov.in/images/cessform1.pdf>

5. **CONDITIONS UNDER AIR (Prevention & Control of Pollution) ACT, 1981:**

- (I) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with reference to generation of Emission and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards:

**Standards for Emissions of Air Pollutants:**

(i)	SPM/TPM	Not to exceed	50 mg/Nm <sup>3</sup>
(ii)	SO <sub>2</sub>	Not to exceed	4.5 T/day

(II) **The applicant shall observe the following fuel patter :-**

<u>Sr. No.</u>	<u>Type of Fuel</u>	<u>Quantity</u>
(i)	Biomass	300 T/day
(ii)	Coal	225 T/day

(III) **The applicant shall erect the chimney(s) of the following specifications:-**

<u>Sr. No.</u>	<u>Chimney attached to</u>	<u>Height in Mtrs.</u>
i)	Boiler	55.0

(IV) **Control Equipment:**

1. Electrostatic Precipitator of sufficient capacity shall be provided to Boiler and any other sources of particulate matter, so as to ensure that TPM emission do not exceed 50 mg/Nm<sup>3</sup>
2. There shall not be any fugitive emission from bagasse handling and fly ash handling.

**Conditions for DG Sets: -**

1. Noise from DG Sets shall be controlled by providing acoustic enclosure or by treating the room acoustically.
2. Applicant should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room shall be designed for minimum 25 dB(A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB(A) shall also be provided. The measurement of insertion loss shall be done at different points at 0.5 meters from acoustic enclosure/ room and then average.
3. The Applicant should make efforts to bring down noise level due to DG Set, outside the premises, with ambient noise level requirements by proper setting and control measures.
4. Installation of DG Set must be strictly in compliance with recommendations of DG set manufacturer;
5. A proper routine and preventive maintenance procedure for DG Set shall be set and followed in consultation with the DG manufacturers, which would help to prevent noise levels of DG Sets from deteriorating with use.
6. The DG set shall be operated only in case of power failure. The applicant shall make arrangement for regular electrical power.
7. The Applicant shall not cause any nuisance in the surrounding area due to operation of DG sets.
8. In case of problems, the D.G. set shall not be operated until it is set back to satisfactory position.

(V) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted / displayed to facilitate identification.

(VI) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.

(VII) **Other Conditions:**

1. The Biomass/Coal handling system shall be covered with proper hooding and ventilation arrangements connected to dust suppress agent so as not to allow any fugitive emissions. The biomass shall strictly be stored in closed shed.
2. A separate environment monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.
3. The industry shall not cause any nuisance in surrounding area.
4. The industry shall monitor stack emissions & ambient air quality regularly.

5. The applicant shall install online continuous monitoring system for stack emission analysis & same shall be directly connected to MPCB website <http://mpcb.gov.in> as well as to the respective Regional Office.
6. If due to any technological improvements or otherwise this Board is of opinion that all or any of the conditions referred above require 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 very all or any of such conditions and thereupon the applicant shall be bound to comply with the conditions so varied.

**6. CONDITIONS UNDER HW (M, H & TM) RULES, 2008:**

- (i) The applicant shall handle hazardous wastes as specified below:

Sr. No.	Item No. of Process generating HW as per Schedule-I	Type of Waste	Quantity	Disposal
1	5.1	spent/used oil	1000 Lit/Annum	By sale to authorized reprocessor

- (ii) The authorization is hereby granted to operate a facility for collection, storage, transport and disposal of hazardous waste.
7. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of factories and Local Body. In case of failure of pollution control equipments, the Production process connected to it shall be stopped.
8. **General conditions:**
- (i) The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30<sup>th</sup> September every year on available open plot area, no. of trees surviving as on 31<sup>st</sup> March of the year and no. of trees planted by September end.
  - (ii) The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by he applicant and operate the same in case of power failure to maintain compliance with the terms and conditions of the consent. In the absence of same, the applicant shall stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.
  - (iii) The firm shall submit MPCB, the Environmental Statement Report for the financial year ending 31<sup>st</sup> March in the prescribed Form-V as pre the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992 before 30<sup>th</sup> September every year.
  - (iv) The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained. The applicant shall also submit a comparative statement of designed power and chemical consumptions vis-a vis actual power and chemical consumption along with Environmental statement.
  - (v) Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers down- stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
  - (vi) The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
  - (vii) The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
9. Applicant shall ensure to implement mitigation measures mentioned in Environment Management Plan.
10. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.

11. The applicant shall not change or alter quantity, quality, the rate of discharge, temperature or the mode of the effluent/ emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
12. This is issued pursuant to the decision of Consent Committee (CC) meeting of the Board held on 15<sup>th</sup> January, 2014.
13. The applicant shall submit the irrevocable operation B.G. of Rs.5.0/- Lakhs drawn in favour of Regional Officer, MPCB Nagpur within 15 days valid for one year period, towards the operation and maintenance of pollution control devices so as to achieve the standards prescribed in the consent.
14. The conditions of installation of CAAQMS and Ozonization for cooling water treatment are waived off as per the decision taken in CC meeting held on 15.01.2014.
15. Total capital investment of the project is Rs.46.66/- Crore.

For and on Behalf of the  
Maharashtra Pollution Control Board,

(Rajeev Kumar Mital, IAS)  
Member Secretary

To,  
M/s. Varam Bio Energy (P) Ltd.,  
(Biomass based Power Plant),  
Plot No. A-2/A-20 P, MIDC Rajegaon,  
Tal-Lakhni, Dist- Bhandara.

**Copy to:**

- 1) Regional Officer, MPC Board, Nagpur 2) Sub Regional Officer, MPC Board, Bhandara.  
They are directed to obtain extended bank guarantee from industry as per consent condition no.13 & submit the performance report along with the monitoring results within one month period.
- 3) Chief Accounts Officer, MPC Board, Mumbai.

Received Consent fee of -

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	75000	007191	18.07.2013	ICICI Bank

- 4) Cess Branch, MPC Board, Mumbai.
- 5) Master file.