

# MAHARASHTRA POLLUTION CONTROL BOARD

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Consent order No: - Consent No. BO/JD(APC)/EIC-NG-9087-13/R/CC- CAC- 9286 Date- 10.2013

02/11/2013

To,  
M/s Maharashtra State Power Generation Co.Ltd.,  
Khaperkheda Thermal Power Station, (Expansion),  
At Khaperkheda, Dist-Nagpur.

Subject: Consent to operate -RED category.

Ref : 1. Earlier Consent granted for 1 x 500 MW) vide no. Consent No. BO/JD(APC)/EIC No. NG-7209-12/R/CC- CAC-500 dated 13.07.2012.  
2. Minutes of CAC meeting held on 05.10.2013.

Your application

Received Dated: 17.05.2013.

For: 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 under Rule 5 of the Hazardous Wastes (M, H & T M) Rules 2008 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II ,III & IV annexed to this order:

1. The consent is granted for a period from 31.08.2013 to 31.08.2014.
2. The actual capital investment of the industry is Rs.3376.84 Crs. (As per C.A.Certificate dated 29.04.2013 submitted by industry along with application.
3. The Consent is valid for the manufacture of -

Sr. No.	Product / By-Product Name	Maximum Quantity in MT/A
1.	Electricity Generation (Coal Based Thermal Power Plant)	1x 500 MW

4. Conditions under Water (P&CP), 1974 Act for discharge of effluent:

Sr. no.	Description	Permitted quantity of discharge (CMD)	Standards to be achieved	Disposal
1.	Trade effluent	7600	As per Schedule -I	Recycle
2.	Domestic effluent	60	As per Schedule -I	Recycle

5. Conditions under Air (P& CP) Act, 1981 for air emissions:

Sr. no.	Description of stack / source	Number of Stack	Standards to be achieved
1.	Boiler	1	As per Schedule -II

6. Conditions about Non Hazardous Wastes:

Sr.No	Type of waste	Quantity	Treatment	Disposal
1	Fly Ash & Bottom Ash	94400 Ton/Month	.....	Shall be send to Cement Manufacturer. Dispose as per Govt. of India Guidelines Notification vide no.SO 763(E) dated 14.9.1999.

7. Conditions under Hazardous Waste (MH & TM) Rules, 2008 for treatment and disposal of hazardous waste:

Sr. No.	Type Of Waste	Category	Quantity	UOM	Treatment	Disposal
1	Used/spent oil	5.1	5.0	KL/Year	—	Sale to authorized recycler/re-processor
2	Chemical Sludge from Waste water treatment	34.3	10.0	MT/year		CHWTSDF, Butibori, Nagpur
3	Polythene bags/discarded HDPE Bags	33.3	5.0	MT/year		
4	Wastes/residue containing oil ( Waste grease/oil contaminated cotton waste)	5.2	1.0	MT/year		
5	Waste Glass wool	--	5.0	MT/year		

8. The Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government authorities.

For and on behalf of the  
Maharashtra Pollution Control Board

(Rajeev Kumar Mital)  
Member Secretary

Received Consent fee of -

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	67,53,687	114543	16.05.2013	Dena Bank

Copy to:

1. Regional Officer - Nagpur and Sub-Regional Officer-Nagpur-II, MPCB, - They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB, Mumbai.
3. CC/CAC desk for record & website updation purposes.

## Schedule-I

### Terms & conditions for compliance of Water Pollution Control:

1) A] As per your application, you have provided the Effluent Treatment Plant (ETP) with the design capacity of 400 m<sup>3</sup>/hr.

B] The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

(i) I] **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.<br>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. |

C) The treated effluent shall be 100% recycled in the process to achieve zero discharge. In no case effluent shall find its way for gardening/outside factory premises.

2) A.] As per your consent application, you have provided the sewage treatment system with the design capacity of STP-I- 2.5 m<sup>3</sup>/hr and STP-II-2.5 m<sup>3</sup>/hr.

B] The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards/ prescribed under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

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

C] The 100% treated sewage shall be recycled for flushing ,fire fighting, cooling etc

- 3) The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or and extension or addition thereto.
- 4) The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
- 5) The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 and as amended, by installing water meters, filing water cess returns in Form-I and other provisions as contained in the said act.

Sr. no.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	39300.0
2.	Domestic purpose	150.0
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	4560.0
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	-

- 6) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act,1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.

## Schedule-II

### Terms & conditions for compliance of Air Pollution Control:

1. As per your application, you have proposed to install/ provided the Air pollution control (APC) system and also proposed to erect / erected following stack (s) and to observe the following fuel pattern-

Sr. No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	S %	SO <sub>2</sub> Kg/Day
1	Boiler	ESP	275	Coal	7759 MT/day	0.4	62072
				Furnace Oil	7.9 KL/day	4.5	711
				LDO	1.98 KL/day	1.8	71.28

2. The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time / Environmental Clearance / CREP guidelines. (Concern section shall mention specific control equipments)
3. The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Particulate matter	Not to exceed	50 mg/Nm <sup>3</sup> .
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4. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement well before its life come to an end or erection of new pollution control equipment.
5. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

**Schedule-III**  
**Details of Bank Guarantees**

Sr. No.	Consent (C to E/O/R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	R	Rs. 25.0/- Lacs	Within 15 days	towards operation and Maintenance of Pollution control system	—	31.12.2014

Maharashtra Pollution Control Board

## Schedule-IV

### General Conditions:

- 1) The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- 2) If the MIDC pipeline is broken/ overflowing chamber, in such cases industry shall not discharge their treated effluent into MIDC drain, it shall be sent to CETP by tanker.
- 3) Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
- 4) 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.
- 5) 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.
- 6) The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
- 7) The firm shall submit to this office, the 30th day of September every year , the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- 8) The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the HW(MH&TM) Rules 2008, which can be recycled/processed/reused/recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc should go for that purpose, in order to reduce load on incineration and landfill site/environment.
- 9) The industry should comply with the Hazardous Waste (M,H & TM) Rules, 2008 and submit the Annual Returns as per Rule 5(6) & 22(2) of Hazardous Waste (M,H & TM) Rules, 2008 for the preceding year April to March in Form-IV by 30<sup>th</sup> June of every year.
- 10) An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- 11) **The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent (in case of Renewal of consent).**
- 12) Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website([www.mpcb.gov.in](http://www.mpcb.gov.in)).
- 13) The industry shall constitute an Environmental cell with qualified staff/personnel/agency to see the day to day compliance of consent condition towards Environment Protection.
- 14) Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the

- pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
- 15) Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
  - 16) 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.
  - 17) Conditions for D.G. Set
    - a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
    - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should 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 will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
    - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
    - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
    - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use
    - f) D.G. Set shall be operated only in case of power failure.
    - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
    - h) The applicant shall comply with the notification of MoEF dated 17.05.2002 regarding noise limit for generator sets run with diesel
  - 18) The industry should not cause any nuisance in surrounding area.
  - 19) 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.
  - 20) The applicant shall maintain good housekeeping.
  - 21) The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a statement on available open plot area, number of trees surviving as on 31<sup>st</sup> March of the year and number of trees planted by September end, with the Environment Statement.
  - 22) The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
  - 23) The applicant shall not change or alter the 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. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
  - 24) 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.
  - 25) The industry shall submit quarterly statement in respect of industries' obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can be downloaded from MPCB official site).
  - 26) The industry shall submit official e-mail address and any change will be duly informed to the MPCB.



27) The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification dt. 16.11.2009 as amended.

**Specific Conditions-**

- 1) The applicant shall comply with the conditions stipulated in Environment Clearance granted by MoEF, Govt vide No.J-13011/24/2005-IA-II(T) dated 02.06.2006.
- 2) The industry shall comply with the notification issued by MoEF for utilization of flyash from coal or lignite based thermal power plants dated 14<sup>th</sup> September, 1999 and as amended on 3<sup>rd</sup> November, 2009.
- 3) 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
- 4) Transportation of coal & fly ash shall be by closed system, Conveyor system wherever possible.
- 5) The applicant shall operate online continuous monitoring system for process stack emission analysis & same shall be directly connected to MPCB website as well as to the respective Regional Office within 3 months period and operate the same regularly.
- 6) The applicant shall operate all continuous automatic ambient air and micrometeorological monitoring station at location indicated by State Board to be set up and operate at its own cost measure SO<sub>2</sub>, NO<sub>x</sub> and particulate matter. These CAAQMS shall also have necessary provision of networking to the Air Quality Monitoring network of MPCB.

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