# MAHARASHTRA POLLUTION CONTROL BOARD

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RED/L.S.I (R48)
No:- Format1.0/CAC/UAN No.MPCBCONSENT-0000143283/CR/2212001920

To, JSW Energy Limited, 41,42,At village Nandiwade, Post- Jaigad, Tal & Dist- Ratnagiri.



Date: 26/12/2022

Sub: Renewal of consent with increase in CI under RED category.

Ref:

- 1. Consent granted by Board vide No.Format1.0/CAC/UAN No.116900/Cr-2202000372 dated 04.02.2022 valid up to 31.08.2022
- 2. The Minutes of Consent Appraisal Committee Meeting held on 02.12.2022.

Your application No.MPCB-CONSENT-0000143283 Dated 08.07.2022

For: grant of 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 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 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 to renewal is granted for a period up to 31/08/2023
- 2. The capital investment of the project is Rs.5592.94 Crs. (As per C.A Certificate submitted by industry Existing CI is-Rs. 5511.20 Cr + Increase in C.I. Rs.81.74 Cr = Total CI Rs. 5592.94 Cr.)
- 3. Consent is valid for the manufacture of:

Sr No	Product	Maximum Quantity	UOM				
Prod	Products						
1 Electricity Generation (4x300 MW) 1200 MW							

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

Sr No	Description	Permitted (in CMD)	Standards to	Disposal Path
1.	Trade effluent	313381	As per Schedule-I	Reused/Recycled for cooling , dust suppression, bed ash quenching, ash slurry water make up, silo dust conditioning, sprinkling on roads to the maximum extent & remaining discharged as sea blow down.

Sr No	Description	Permitted	Standards to	Disposal
2.	Domestic effluent	47	•	On land for gardening in premises

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

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	Biflue Stack	Boiler 1 & 2	01	As per Schedule -II
2	Biflue Stack	Boiler 3 & 4	01	As per Schedule -II
3	DG sets	DG sets (4x750 KVA)	04	As per Schedule -II

# 6. Non-Hazardous Wastes:

Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
1	FLY ASH & BOTTOM ASH	1250000	MT/A	Recycle	Shall be sent to Cement Manufacturing Plant, Brick Manufacturing Plant and dispose as per MoEF-CC,Gol Notification No.SO-763(E) dated 14.09.1999 and as amended time to time thereof.

# 7. Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for treatment and disposal of hazardous waste:

Sr No	Category No./ Type	Quantity	<b>UoM</b>	Treatment	Disposal
1	5.1 Used or spent oil	140	Lit/Day	Recycle	Send to Authorised Recycler/Re-processor
2	5.2 Wastes or residues containing oil	100	Kg/Annum	Incineration	CHWTSDF
3	3.3 Sludge and filters contaminated with oil	100	Kg/Annum	Incineration	CHWTSDF
4	35.2 Spent ion exchange resin containing toxic metals	500	Kg/Annum	Landfill	CHWTSDF
5	35.3 Chemical sludge from waste water treatment	150	Kg/Day	Landfill	CHWTSDF

# 8. Conditions under Batteries (Management & Handling) Rules, 2001:

Sr No	Type of Waste	Quantity	UoM	Disposal Path
1	Used Batteries	100.00	Nos./Y	Send to Authorised Recycler/Re-processor

### **Specific Conditions for used Batteries:**

- i. The applicant shall ensure that used batteries are not disposed of in any manner other than by depositing with the authorized dealer/ manufacturer/ registered recycler/ importer/ re-conditioner or at the designated collection center.
- ii. The applicant shall file half-yearly return in Form VIII to the M.P.C. Board.
- iii. Bulk consumers to their user units may auction used batteries to registered recyclers only.
- 9. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
- 10. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
- 11. The applicant shall comply with the conditions of the Environmental Clearance granted by MoEFCC, GoI vide letter No. J-13012/52/2006-IA-II(T) dated 10.05.2007 and amendment vide No. J-13012/52/2006-IA-II(T) dated 16.04.2010 and EC J-13012/52/2006-IA-II(T) dated 10.07.2017.
- 12. Industry shall install online continuous monitoring system as per CPCB guidelines & data to be transmitted directly from Data Logger to Board server.
- 13. The Energy source for lighting purpose shall preferably be LED based
- 14. The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
- 15. Industry shall comply with notifications issued by MoEF & CC for utilization of fly ash from coal or lignite based thermal power plant dated 14th September, 1999 and as amended to date. PP shall dispose of legacy pond ash regularly.
- 16. The applicant shall comply with the recommendations of the task force for implementation of CREP recommendation for Thermal Power Plants
- 17. The industry shall comply the standards stipulated by the Ministry of Environment, Forest and Climate Change vide Notification dtd 07.12.2015.
- 18. The sulphur and ash content in the coal to be used in the project shall not exceed 0.5% and 34% respectively
- 19. PP shall comply with the MoEF&CC amendment notification no. S.O.1561 (E) dtd. 21.05.2020. & 31.03.2021.
- 20. This consent is issued without prejudice to the order passed/being passed by Hon'ble NGT.
- 21. Industry shall extend the existing BG for the period up to 31.12.2023.
- 22. Industry shall submit the details of generation of Quantity of Hazardous waste such as ETP sludge and used batteries, E-waste, and its disposal mode.
- 23. Industry shall submit the copy of membership of CHWTSDF within 3 months period.

- 24. The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent.
- . This consent is issued as per communication letter dated 03/11/2022 which is approved by competent authority of the board.

#### Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	778920.00	MPCB-DR-14473	21/09/2022	RTGS

As per earlier consent No. Format1.0/CAC/UAN No.116900/Cr-2202000372 dated 04.02.2022 the consent fees of Rs. 4,40,89,600 /- was balance with the Board. Consent fees paid by the industry with the application is Rs. 7,78,920 /-. Out of Total available consent Fees of Rs. 4,48,68,520/-, Consent fees of Rs. 1,13,49,360/- considered for renewal of consent for one year i.e. for the period up to 31.08.2023 which includes consent to establish fees towards increase in Cl. Now the Balance consent fees with the Board is Rs. 3,35,19,160/- which will be considered during next renewal of consent

# Copy to:

- 1. Regional Officer, MPCB, Kolhapur and Sub-Regional Officer, MPCB, Ratnagiri
- They are directed to ensure the compliance of the consent conditions.
- 2. Chief Accounts Officer, MPCB, Sion, Mumbai
- 3. CAC desk-for record and website updating purpose.

#### **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 1500 m3/day.
  - 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:

Sr.No	Parameters	Limiting concentration not to exceed in mg/l, except for pH	
For Co	ndenser Cooling Water		
(1)	рН	Between 6.5 to 8.5	
(2)	Temperature Not to exceed 5°C than that of intake very temp.		
(3)	Free available chlorine	Not to exceed 0.5 mg/l	
Boiler	Blow Down		
(1)	Suspended Solids	Not to exceed 100 mg/l	
(2)	Oil & Grease	Not to exceed 10 mg/l	
(3)	Copper (Total)	Not to exceed 1 mg/l	
(4)	Iron (Total)	Not to exceed 1 mg/l	
Cooling	g 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.M. P	ant Effluent		
(1)	рН	5.5 to 9	
(2)	Suspended Solids	Not to exceed 100 mg/l	
(3)	Oil & Grease	Not to exceed 10 mg/l	
(4)	BOD 3 days	Not to exceed 30 mg/l	
(5)	COD	Not to exceed 250 mg/l	

- C] The Industry shall ensure connectivity online monitoring system to the MPCB server including separate energy meter for pollution control system.
- D] The treated effluent shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise after confirming above standards. In no case, effluent shall find its way to outside factory premises.
- 2. A] As per your application, you have provided Sewage Treatment Plant of designed capacity 50 CMD for the treatment of 47 CMD of sewage.

B] The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards.

Sr.No	Parameters	Standards (mg/l)	
1	Suspended Solids	Not to exceed	50 mg/l
2	BOD 3 days 27°C	Not to exceed	30 mg/l
3	COD	Not to exceed	100 mg/l

- C] The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise after confirming above standards. In no case, sewage shall find its way to outside factory premises.
- 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 there of & 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 an 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) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)		
<ol> <li>Industrial Cooling, spraying in mine pits or boiler feed</li> <li>Domestic purpose</li> </ol>		374400.00		
		60.00		
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	3120.00		
4. Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic  5. Gardening		0.00		
		50		

- 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.
- 7. The industry shall reduce specific water consumption 3.5 m3/MWh as per MoEF&CC notification dtd. 7th Dec 2015 and as amended 28th June, 2018.

# **SCHEDULE-II**

# Terms & conditions for compliance of Air Pollution Control:

1. As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:

Stack No.	Source	APC System provided/prop osed	Stack Height(in mtr)	Type of Fuel	Sulphur Content(in %)	Pollutant	Standard
						TPM	50 Mg/Nm³
Bi-flue	Boiler 1	ESP & FGD	220.00	Coal 6950	0.5	SO2	600 Mg/Nm³
Stack-1	& 2	LSI WIOD	220.00	MT/Day	0.5	NOx	450 Mg/Nm³
						Mercury	0.03 Mg/Nm³
						TPM	50 Mg/Nm³
Bi-flue	Boiler 3		220.00	Coal 6950	0.5	SO2	600 Mg/Nm³
Stack-2	& 4			MT/Day		NOx	450 Mg/Nm³
						Mercury	0.03 Mg/Nm³
DG	DG set-750 KVA	set-750 ACOUSTIC	него 5.50	HSD 180	1.0	TPM	100 Mg/Nm³
set-1			3.50	Ltr/Hr	1.0	SO2	86.40 Kg/Day
DG	DG set-750	Acoustic	5.50	HSD 180	1.0	TPM	100 Mg/Nm³
set-2	KVA	I ENCINCITE I	5.50	Ltr/Hr	1.0	SO2	86.40 Kg/Day
DG	DG set-750	Acoustic	5.50	HSD 180	1.0	TPM	100 Mg/Nm³
set-3	KVA	[-/50] Enclosure	5.50	Ltr/Hr	1.0	SO2	86.40 Kg/Day
DG	DG set-750	Acoustic	5 50	HSD 180	1.0	TPM	100 Mg/Nm³
set-4	KVA	Enclosure	5.50	180 Ltr/Hr	1.0	SO2	86.40 Kg/Day

<sup>2.</sup> 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.

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:

Units	<b>Parameters</b>	Standards				
Standards for Thermal Power Plant:						
	TPPs (Units) installed after 1 <sup>st</sup> January, 2003, upto 31 <sup>st</sup> December, 2016*					
Unit 1,2 3 &	Particulate Matter	50 mg / Nm³				
4	Sulphur Dioxide (SO <sub>2</sub> )	600 mg / Nm³				
	Oxides of Nitrogen (NOx)	450 mg / Nm <sup>3</sup>				
	Mercury (Hg)	0.03 mg / Nm <sup>3</sup>				

- 4. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration 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).
- 6. Control Equipment.
  - a) Electrostatic Precipitator (ESP) of sufficiet capacity shall be provided to Boiler and any other sources of particulate matter and it shall be Operate and maintain so as to ensure that TPM emission doesnot exceed 50 mg/Nm3.
  - b) Dust collecting system and automatic water sprinkler system provided to Coal Handling Plants shall be operate and maintain continuously.
  - c) Dust collector of sufficient capacity provided to coal crusher and any other source of SPM shall operate and maintain continuously.
  - d) There shall not be any fugutive emission from coal storage yard.

# **SCHEDULE-III**

# **Details of Bank Guarantees:**

Sr. No	Consent (C2E/ C2O /C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C2R	Rs. 50 Lakh	15 days	Towards Operation and Maintenance of Air Pollution Control Devices to achieve emission standards.	Continuous	31.12.2023
2	C2R	Rs. 5 Lakh	15 days	To switch over to 100 % usable dry fly ash collection and storage	6 months	31.12.2023
3	C2R	Rs. 1 Lakh	15 days	Towards utilization of fly ash as per fly ash notification 1999.	Continuous	31.12.2023
4	C2R	Rs. 1 Lakh	15 days	Towards Mitigation of seepages from wet fly ash conveying system	Continuous	31.12.2023
5	C2R	Rs. 1 Lakh	15 days	Towards Scientific operation of ash pond i.e. uniform distribution of wet slurry in the pond so as to have minimum depth of water	Continuous	31.12.2023
6	C2R	Rs. 1 Lakh	15 days	Towards providing arrangement for reuse of 100% seepage water, arising from ash pond, for ash slurry	3 months	31.12.2023
7	C2R	Rs. 5 Lakh	15 days	Towards Scientific closure of abandoned ash pond with soil cover and plantation over it	6 months	31.12.2023
8	C2R	Rs. 5 Lakh	15 days	Towards Operation & maintenance of the Effluent Treatment Plant to achieve disposal standards	Continuous	31.12.2023

The above Bank Guarantee(s) shall be submitted by the applicant in favour of Regional Officer at the respective Regional Office within 15 days from the date of issue of Consent.

# **BG** Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG		Reason of BG Forfeiture
NA						

#### **BG Return details**

Srn	o. Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned		
	NA					

#### **SCHEDULE-IV**

### **General Conditions:**

- 1. 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 sitting 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 MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
- 2. The applicant shall maintain good housekeeping.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. 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 downloaded from MPCB official site).
- 7. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
- 8. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
- 9. 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 an extension or addition thereto.
- 10. 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.

- 11. The PP shall provide personal protection equipment as per norms of Factory Act
- 12. Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
- 13. 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.
- 14. 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.
- 15. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, 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.
- 16. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- 17. 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).
- 18. 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.
- 19. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
- 20. The industry should not cause any nuisance in surrounding area.
- 21. 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.
- 22. The industry shall create the Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
- 23. 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.
- 24. The industry should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year.

- 25. 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.
- 26. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
- 27. 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.
- 28. The firm shall submit to this office, the 30th day of September every year, the Environment 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.
- 29. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
- 30. 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).
- 31. 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.

This certificate is digitally & electronically signed.