

MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 4010437/4020781
/4037124/4035273
Fax : 24044532/4024068 /4023516
Email : enquiry@mpcb.gov.in
Visit At : <http://mpcb.gov.in>



Kalpataru Point, 3rd & 4th floor, Sion- Matunga
Scheme Road No. 8, Opp. Cine Planet Cinema, Near
Sion Circle, Sion (E),
Mumbai - 400 022

Consent order No: -Format 1.0/BO/AS(T)/NK-17954-14/CC Cell/O & Amalgamation/CC-4518
Date: 10/9/15

To,
M/s Advanced Enzymes Technologies Ltd.,
Plot No. A-61/62, MIDC Malegaon,
Tal. Sinnar, Dist. Nashik.

Subject: Consent to 1st Operate for operation of additional 4 TPH Coal fired Boiler & Amalgamation with existing Consent under RED/LSI category.

- Ref. : 1. Earlier Consent granted vide no. Format 1.0/BO/AS(T)/NK-16652-14 & 16880-14/ CC Cell/R&E/CC-7368 dtd. 05/08/2014.**
2. Minutes of the Consent Committee meeting held on 19/03/2015.

Your applications Dated: 16/12/2014

For: Grant of Consent to Operate & Amalgamation with existing Consent to Operate (141216FT0331) 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 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 to Operate is granted for a period upto 31/07/2019.
2. The capital investment of the industry is Rs. 48.58 Cr as per C.A. Certificate submitted by industry).
3. The Consent to Operate is valid for the manufacture of -

Sr. No.	Industry/By-Product Name	Maximum Quantity	Unit
1	Thermo Stable Amylase	8.33	MT/M
2	Glucomylase	8.33	MT/M
3	Detergent Protease Powder	5.00	MT/M
4	Detergent Protease Liquid	15.00	MT/M
5	Fungal Alpha Amylase	6.00	MT/M
6	Papain	8.33	MT/M
7	Pancreatin	8.33	MT/M
8	Trypsin	0.083	MT/M
9	Serratiopepsidase	2.00	MT/M
10	Pepsin	2.50	MT/M
11	Celastose	5.00	MT/M
12	Alpha Amylase	25.00	MT/M
13	Alkaline Protease	30.00	MT/M
14	Hypco Rich Powder	50.00	MT/M
15	Hypco Rich Liquid	20.00	MT/M

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

Sr. No.	Description	Permitted quantity of discharge (MT/Day)	Standards to be achieved	Disposal
1.	Trade Effluent	48.60	As per Schedule - I	Recycle/reuse 100% of treated effluent into process

2.	Domestic effluent	6.0	As per Schedule -I	Overflow from Soak pit applied on land for gardening
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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	F.O. fired Boiler	2	As per Schedule -II
2	Coal fired Boiler	1	As per Schedule -II
3	Process Vent	1	As per Schedule -II
4	DG set 650 KVA	1	As per Schedule -II

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

1. The Industry shall not generate any kind of hazardous wastes.

7. Conditions about Non Hazardous Wastes:

The applicant shall handle non-hazardous waste as follows:

Sr. No.	Type Of Waste	Quantity & UoM	Treatment	Disposal
1	Packing Material	100 Kg/M	-	Sale

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.
10. This Consent is issued with the overriding effect on earlier Consent granted vide Consent No. Format 1.0/BO/AS(T)/NK-16652-14 & 16880-14/CC Cell/R&E/CC-7368 dtd. 06/08/2014.
11. The applicant shall recycle / reuse 100% of treated effluent into process so as to achieve Zero Liquid Discharge (ZLD). In no case, effluent shall find its way outside Company's premise.
12. This Consent is issued pursuant to the decision of the Consent Committee meeting held on 19/03/2015.

For and on behalf of the
Maharashtra Pollution Control Board

(Dr. H. Anbalagan)
Member Secretary, I.A.S.

Copy to:

1. Regional Officer/ Sub-Regional Officer, M.P.C. Board, Nashik.
-They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCCB, Mumbai.
3. CC/CAC desk- for record & website updation purposes.

Received Consent fee of -

Rs.	Account No.	Date	Bank
Rs. 15,000/-	241055	23/05/2014	SBI
Rs. 3,75,000/-	241186	07/05/2014	SBI
Rs. 5,000/-	241054	11/05/2014	SBI
Rs. 25,100/-	788812	12/12/2014	SBI

Schedule-I

Terms & conditions for compliance of Water Pollution Control:

1) A] As per your application, you have provided Effluent Treatment Plant (ETP) of Capacity 50 CMD consisting of primary, secondary & or tertiary treatment followed by Multiple effect evaporator so as to achieve Zero Liquid Discharge (ZLD).

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	Standards prescribed by Board (If any)
	I. Compulsory Parameters	Limiting Concentration in mg/l, except for pH
01	pH	5.5 -9
02	Oil & Grease	10 mg/l
03	BOD (3 days 27oC)	100 mg/l
04	Total Dissolved Solids	2100 mg/l
	II Additional Parameters	
05	Suspended Solids mg/lit	100 mg/l
06	COD mg/lit	250 mg/l
07	Chloride mg/lit	600 mg/l
08	Sulphate mg/lit	1000 mg/l

C) Trade effluent disposal: The treated trade effluent shall be reused/recycled 100% into process. In no case, trade effluent shall find its way outside company's premise.

2) A) The daily quantity of sewage effluent from the factory shall not exceed 6.0 M³.

B) 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 27oC. Not to exceed 100 mg/l.

C) Sewage Effluent Disposal: The treated domestic effluent shall be soaked in a soak pit, which shall be got cleaned periodically. Overflow if any, shall be used on land for gardening/plantation only within own premise.

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 and or 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	75.0
2.	Domestic purpose	20.0
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	70.0
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.0
5.	Others	0.0
	1) Gardening	0.0

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.

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 also erected following stack (s) and to observe the following fuel pattern-

Sr. No.	Stack Attached To	APC System	Height in Mts.	Fuel	Capacity & Unit	SO ₂ %	SO ₂ Kg/day
1	Boiler-I(4 TPH)	--	30	F.O.	4.0 Kltrs/day	157.5	315
2	Boiler-II(6 TPH)	--					
3	Boiler-III(4 TPH)	Dust Collector	30	Coal	325 Kg/Hr	39	78
4	Spray Dryer & Cage Mill	--	20	LDO			
5	DG Set (650 KVA)	--	5.0 mts above roof	Diesel	60 Ltrs/hr	12.4	25.2

Apart from above, applicant shall provide scrubbers of sufficient capacity to control process emissions.

- 2) The applicant shall operate and maintain air pollution control system, so as to achieve the level of pollutants to the following standards:

SPM/TPM	Not to exceed	150 mg/Nm ³
SO ₂ (F.O. fired Boiler)	Not to exceed	315 Kg/Day
SO ₂ (Coal fired Boiler)	Not to exceed	78 Kg/Day
HCl/Acid Mist	Not to exceed	35 g/Nm ³

- 3) 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.
- 4) 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).
- 5) 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.

Schedule-III

Details of Bank Guarantees in force

Sr. No.	Consent (C to E/O/R)	Amt of BG Imposed	Submission Period	Conditions	Compliance Period	Validity Date
1	C to O	Rs. 5.0 Lakh	Existing	Towards 100% reuse of treated trade effluent and not to discharge effluent outside factory's premises.	With the immediate effect	30/11/19
2	C to O	Rs. 5.0 Lakh	Existing	Towards O&M of pollution control systems	With the immediate effect	30/11/19

The applicant shall keep and maintain bank guarantees of Rs. 5.0 Lakh each in the Regional Office, Nashik with the validity upto 30/11/2019 towards 100% reuse of treated trade effluent and not to discharge effluent outside factory's premises; & towards O&M of pollution control systems respectively.

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 30th 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.
- 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).
- 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 equipments 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 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.
- 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 the manager 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.
- 28) The industry shall recycle/reprocess/reuse/recover hazardous waste as per the provision contained 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 cannot 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 and environment.