



**SPEED POST**

B-190197/WQM-II/RG/CPCB/SUGAR/79/2018-19

12298

30 October 2018

05<sup>th</sup> November, 2018

To,

**M/S VISHNU SUGAR MILLS LTD.  
GOPALGANJ,  
BIHAR-841428**

**DIRECTION UNDER SECTION 5 OF THE ENVIRONMENT (PROTECTION) ACT, 1986**

**WHEREAS**, the Central Government has notified the standards for discharge of environmental pollutants from various categories of industries under the Environment (Protection) Act, 1986 and the rules framed there under; and

**WHEREAS**, the Ministry of Environment & Forests, Govt. of India, vide notification S.O.157(E) of 27.02.1996 has delegated powers vested under Section 5 of the Environment (Protection) Act, 1986 (29 of 1986) to the Chairman, Central Pollution Control Board (CPCB), to issue direction to any industry, Municipal Corporation, Municipal Council, Cantonment Board to any local or other Authority for the violation of emission and effluent standards notified under the Environment (Protection) Rules, 1986; and

**WHEREAS**, it is obligatory on the part of industries to install Effluent Treatment Plants (ETPs) to comply with the effluent discharge standards as notified under the Environment (Protection) Act, 1986 and the Rules framed thereunder and also to meet the consent conditions granted by State Pollution Control Board (SPCBs) / Pollution Control Committees (PCCs); and

**WHEREAS**, M/s Vishnu Sugar Mills Ltd., Gopalganj, Bihar (hereinafter referred as 'the Unit') is involved in the process of sugar manufacturing from crushing of cane; and

**WHEREAS**, CPCB issued direction dated 16.06.2017 under section 5 of Environment Protection Act, 1986 to the Unit to remain closed till compliance of the following directions : i) Submission of ETP adequacy assessment report ii) Time bound action plan of ETP augmentation iii) Water audit and mass balance report iv) Action plan to achieve notified effluent discharge quality and generation standards v) Irrigation management plan vi) Restriction of storage of treated effluent in lined lagoon only for 15 days and other general direction pertaining to proper running of effluent treatment system, with all the reports and action plans validated by reputed institutions like National Sugar Institute (NSI), Kanpur/Vasandada Sugar Institute (VSI), Pune /IITs submitted to CPCB within 60 days; and

**WHEREAS**, the Unit has submitted the reply to the directions dated 16.06.2017 with compliance status and action plan against the direction and subsequently submitted the Water balance and ETP adequacy report of the Unit vide letter dated 09.09.2017 duly verified by VSI, Pune; and

**WHEREAS**, CPCB issued direction dated 02.11.2017 under section 5 of Environment Protection Act, 1986 to the Unit to comply with the following directions;

1. The Unit shall start its operation only after obtaining valid consent from the concerned State Pollution Control Board.
2. The Unit shall submit the action plan within 15 days to implement the recommendations (including general observations) of the adequacy report.
3. The Unit shall install & Commission ETP system up to tertiary treatment level including adequate treatment system for spray pond overflow effluent in case of double sulphitation process (Brine recovery system to be installed in case of sugar refinery having Ion Exchange Process for sugar melt de-colorization).

4. The Unit having high pressure boiler ( $>45 \text{ Kg/cm}^2$ ) shall install & Commission Condensate Polishing Unit (CPU) within 45 days for treatment of condensate water to ensure its reuse & recycle within the process.
5. The Unit shall restrict the effluent storage capacity to 15 days.
6. The Unit shall utilise treated effluent meeting the prescribed norms for irrigation as per the irrigation management plan validated by expert institutions namely, NSI, Kanpur/ VSI, Pune/ Agricultural Institutions.
7. The Unit shall implement the observation and recommendation of the adequacy report within 45 days.
8. The Unit shall get the verification of implementation status of the recommendation of adequacy report including ETP performance assessment & effluent generation assessment done by the same institute which carried out adequacy assessment and submit the report to CPCB within 45 days from date of resumption of manufacturing operations.
9. The analysis result of the treated effluent shall also be submitted within 45 days through EPA recognised laboratories.
10. If the Unit fails to provide the verification report duly validated by the expert institutions, the Unit shall automatically stop all its manufacturing operations after 45 days from date of resumption of manufacturing operations.

**AND WHEREAS**, the Unit (M/s Vishnu Sugar Mills Ltd., Gopalganj, Bihar) was inspected on 07.01.2018 by officials from CPCB to verify the compliance status of the Unit following the direction dated 30.10.2017 and following observations were made;

1. During inspection both unit & ETP found operational.
2. The Unit has valid consent under Water (Prevention and Control of Pollution) Act, 1974 & Air (Prevention and Control of Pollution) Act, 1981 up to 30.06.2018.
3. Industry has installed full-fledged ETP based on Primary, Secondary & Tertiary treatment process. ETP comprises of oil skimmer, Equalization tank, Primary clarifier diffuse Aeration tank, Secondary Clarifier, Activated Carbon filter, Sand filter and Sludge drying beds.
4. During inspection, ETP samples were collected from Aeration tank and outlet of ETP to assess the performance of ETP. Analysis of ETP outlet effluent sample showed pH 7.81 (against norms 5.5-8.5), BOD 06 mg/L (against norms 30 mg/L), COD 58 mg/L (against norms 30 mg/L) and TSS 14 mg/L (against norms 30 mg/L). However, MLSS and MLVSS in aeration tank are **348 mg/l and 322 mg/l**, which indicates improper stabilization of aeration tank.
5. OCEMS system installed and connected to CPCB/SPCB servers.
6. Treated effluents are stored in lagoon and utilized in cleaning and irrigation purposes.
7. The unit has not submitted the irrigation management plan validated by expert institutes namely NSI, Kanpur/VSI, Pune/Agricultural institute.

**AND THEREFORE**, in view of above observations a show cause notice was served to the Unit dated 23.05.2018 under section 5 of the Environment (Protection) Act, 1986; and

**WHEREAS**, the Unit has submitted the Water Balance & ETP Adequacy Verification report duly verified by VSI, Pune vide their letter dated 01.06.2018 which was examined and following points were observed:

1. Unit has installed separate flowmeters on borewell for fresh water used in industry and colony.
2. Flow meters were installed on - wet scrubber, for imbibition water, vaccum filter, pans, boiler makeup, lime preparation, centrifugal excess condensate, spray pond overflow and wash water line.
3. Flow meter was not found installed at ETP inlet as recommended in adequacy report.
4. Analysis of all samples for parameters were not carried out as per the schedule provided in adequacy report.

5. Mills were found working on optimum capacity.
6. Storage tank is provided for reusing soda boiling water and to dispose it slowly in ETP as recommended.
7. The existing cleaning system is not replaced with hydrojet cleaning system.
8. The installed crushing capacity of the sugar mill is 5000 TCD with average crushing rate of last three year was 3878.61 TCD which was found as 4792 TCD during verification by VSI providing crushing efficiency of 95.84%.
9. One cooling tower was installed for cooling water of mill house and power house having capacity 50M<sup>3</sup>/hour which is adequate.
10. Actual fresh water abstracted from tubewell for sugar mill is 7.35 L/tonne of cane.
11. The ETP is designed for treating 1000M<sup>3</sup>/day of effluent, during crushing season the effluent quantity generation is 637.35 M<sup>3</sup>/day i.e. 133 L/tonne of cane crushed.
12. The ETP system is overcapacity, however considering low temperature during winter season and variations in flow and organic load, it is adequate.
13. Laboratory for water analysis was not established.

**AND WHEREAS**, the Unit replied to show cause notice vide their letter dated 15.06.2018 and 02.07.2018 were examined and following observations were made:

1. The Unit is monitoring parameters for waste water quality control additionally, critical parameters like MLSS and MLVSS will also be considered as daily monitoring parameter and special attention will be paid to bacterial growth in aeration tank.
2. Unit has not submitted the irrigation management plan as directed and informed that management personally will monitor this point since water conservation, recycle and re-use is on top priority.

**AND WHEREAS**, CPCB through an Expert Committee comprising of experts from National Sugar Institute (NSI), Kanpur, Vasantdada Sugar Institute (VSI), IITs and representatives from sugar mills prepared a Charter for Water Recycling and Pollution Prevention; and

**WHEREAS**, a meeting of sugar mills operating in the State of Bihar, representatives of Bihar State Pollution Control Board (BSPCB) and CPCB was held on 10.08.2018 under Chairmanship of Chairman, BSPCB and the following decisions were made

1. Sugar Mills shall submit an action plan to CPCB by 20.08.2018 regarding the steps taken by them pertaining to the notices issued to them. Also they shall submit action plan to implement recommendations of their adequacy assessment report.
2. All sugar mills shall ensure implementation of Charter and shall submit action plan to CPCB by 15.09.2018.
3. All sugar mills shall ensure the upgradation of their ETP within August, 2018 so as to ensure no interruption in functioning of the ETP in the following seasons.
4. All sugar mills shall maintain a logbook on ETP operations on a daily basis.
5. ETP shall be operational at all times and all bypass arrangements should be dismantled with immediate effect.
6. MLSS in aeration tanks should be maintained at 2000-2500 mg/l.
7. All sugar units shall set up environmental laboratories for regular analysis of raw and treated effluent thereby ensuring proper functioning of the ETP.
8. All sugar mills shall employ dedicated technicians for operating and regular maintenance of ETP and shall also ensure that the technicians are given proper training on ETP maintenance and lab analysis on regular basis.
9. To ensure proper training of the environmental technicians all sugar mills shall facilitate training of 5 employees.

10. All sugar mills may establish an Environment Management Cell at their level consisting of concerned officials in order to ensure compliance with environmental standards at industry level itself.

**AND WHEREAS**, the Unit has submitted the implementation status of Charter for Water Recycling & Pollution Prevention in Sugar Factories situated in Ganga basin and check points & monitoring protocol for charter implementation vide their letter dated 17.08.2018 which are examined and following are observed;

1. Unit is already using most of the process of cane preparation and juice extraction as per charter except non-installation of truck/trolley trippler and steam turbine driven mills are used in place of variable speed DC drive as per BMT.
2. Unit has made modifications in waste water treatment system as per VSI design including installation of tertiary treatment system.
3. Unit is using conventional chemical with mechanical cleaning of heat exchangers and hydrojet cleaning is not used.
4. Unit is dry cleaning factory floors etc. using bagasse.
5. Constructed Hazardous tanks of adequate capacity to collect wash water generated during chemical/mechanical cleaning of evaporator tubes and reused and discharging it in a controlled manner to the ETP.
6. Flowmeter with auto massescite feed control valve on centrifugal machines installed.
7. Two stage fan-less cooling tower installed.
8. Combined treatment of entire effluent by precipitating sulphur/sulphates using milk of lime/alum/ and poly electrolytes removing precipitates through micro (tubes) settlers after removal of oil and grease followed by secondary aerobic treatment and tertiary treatment through sand filter and activated carbon filter.

**NOW, THEREFORE**, in view of the above observation, and exercising powers delegated to the Chairman, Central Pollution Control Board under Section 5 of the Environment (Protection) Act, 1986, the unit (M/s Vishnu Sugar Mills Ltd., Gopalganj, Bihar) is directed to comply with the following directions before commencement of crushing season 2018-2019:


1. The unit shall obtain the valid consents to operate from Bihar State Pollution Control Board before starting their operations and shall not operate the plant above the installed crushing capacity of 5000 TCD.
2. The unit shall implement the observation & recommendation of the revalidated adequacy assessment of ETP.
3. The unit shall install sealed flow meter along with running hours meter on bore wells so as to ascertain usage of fresh water for various uses.
4. The unit shall install flow meters at major areas of cold and hot water consumption.
5. The unit shall install flow meters for measuring generation of effluent from various prominent areas.
6. The unit shall maintain logbook for individual process unit for recording daily water consumption and effluent generation.
7. The unit shall carry out colour coding of pipelines carrying recycled process water and fresh process water.
8. Unit shall submit the irrigation management plan duly validated by VSI/NSI/IITs.
9. The Unit shall commission mechanical sludge handling system of adequate capacity.
10. The Unit will carry out analysis of parameters of treated effluent notified under Environment (Protection) Rules, 1986 on daily basis and maintain its logbook.
11. The unit shall submit the implementation status of the Charter in the form of Affidavit and the documentary proof of the completion of the work as committed in the action plan.

12. The unit shall submit implementation status of the Charter and performance adequacy audit of ETP including actual assessment of water consumption and effluent generation duly validated by reputed expert Government institute namely NSI Kanpur, VSI Pune, IITs during crushing season & submit the report to CPCB within 60 days of resumption of operation.

In case of default in compliance with the above directions, CPCB will be constrained to initiate action against the Unit (M/s Vishnu Sugar Mills Ltd., Gopalganj, Bihar) without giving any further notice in accordance with the provisions of the Environment (Protection) Act, 1986.

  
(S.P. SINGH PARIHAR)  
CHAIRMAN

**Copy to:**

1. **Principal Secretary** : For kind information, please.  
Sugarcane Industries,  
Government of Bihar  
Department of Sugarcane Development  
Vikas Bhawan, New Secretariat  
**Patna-800015**
2. **Member Secretary** :With request to ensure compliance of the  
Bihar Pollution Control Board, directions.  
Parivesh Bhawan, Plot No. Ns-B/2  
Patliputra Industrial Area,  
**Patna (Bihar) – 800023**
3. **Joint Secretary (CP Division)** :For kind information, please.  
Ministry of Environment, Forest & Climate Change  
Prithvi Block, Indira Paryavaran Bhawan,  
Jorbagh Road,  
**New Delhi- 110003**
4. **District Magistrate** :For kind information, please.  
Gopalganj, Bihar-843327
5. **Regional Director** :For follow up and ensuring compliance  
Regional Directorate (East)  
Central Pollution Control Board,  
Southern Conclave, Block-502, 5th & 6th Floor,  
1582 Rajdanga Main Road  
**Kolkata - 700107 (W.B.)**
6.  The In-charge, IT Division, CPCB Delhi : For uploading on the CPCB website
7. Master file/Guard file, WQM II, CPCB Delhi : For record

  
(PRASHANT GARGAVA)  
MEMBER SECRETARY

