



Speed Post

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14 November 2018

2018

To,

M/S HARINAGAR SUGAR MILLS LTD.
HARINAGAR
WEST CHAMAPARAN,
BIHAR-845103

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 Harinagar Sugar Mills Ltd., Harinagar, West Chamaparan, 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 to the Unit under section 5 of Environment Protection Act, to the unit for carrying out ETP adequacy by reputed institute; and

WHEREAS, Unit has submitted the Water balance and ETP adequacy assessment report vide letter dated 12.09.2017 from the Unit prepared by NSI, Kanpur; and

WHEREAS, Unit has submitted the irrigation management plan (Utilization of Treated Effluent for Irrigation Purpose) prepared by NSI, Kanpur vide their letter dated 18.10.2017; 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 action plan within 15 days to implement the recommendations (including general observation) of adequacy report within 45 days.
3. The Unit shall install & Commission ETP system upto 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).

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

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4. The Unit having high pressure boiler (>45 Kg/cm²) 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 implement 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 Harinagar Sugar Mills Ltd., Harinagar, West Champaran, Bihar) was inspected on 12.01.2018 by officials from CPCB to verify the compliance status of the Unit, and following observations were made;

1. The Unit and the ETP were operational.
2. The Unit has valid consent under Water (Prevention and Control of Pollution) Act, 1974 & Air (Prevention and Control of Pollution) Act, 1981 upto 30.11.2018.
3. The Unit has installed Effluent Treatment Plant (ETP) which is comprised of Oil and Grease trap, Primary Clarifier, Aerated lagoon, Aeration Tank, Secondary Clarifier and Sludge Drying Beds.
4. The Unit has a licensed capacity of 10000-TCD, while it was noted that from December to January most of the days the Unit exceeds (average 10 to 20% per day) its licensed capacity.
5. The analysis of treated effluent sample shows pH-7.37 as against norms of 5.5-9.0, BOD-26 mg/l against norms of 30 mg/l, COD-72 mg/l against norms of 250 mg/l and **TSS-55** mg/l against norms of 30 mg/l, which indicates non-compliance w.r.t. TSS with the effluent surface discharge norms prescribed under Environment (Protection) Rules, 1986.
6. Total effluent is discharged **229 Litre/ tonne** by the Unit which is higher than permissible limit.
7. Flow meters were not found at the inlet and Spray pond overflow.
8. The Unit has not installed any system for treating cooling tower blow down.
9. OCEMS system was installed and connected to CPCB & SPCB server; and

WHEREAS, CPCB has issued show cause notice dt. 23.04.2018 under Section 5 of the Environment (Protection) Act, 1986 to the Unit; and

WHEREAS, the Unit submitted the replies of the show cause notice vide letter dt.16.05.2018, 25.05.2018 and 30.08.2018, following observations were made;

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- 1) Unit has installed flow meters on the inlet line, outlet of ETP, 12 flowmeters installed in process and fresh water sources (borewell).
- 2) Lined lagoon of 32000 m³ capacity has been constructed for storage of treated effluent for maximum 14 days.
- 3) Flowmeters were installed in cooling tower overflow.
- 4) Unit has submitted that their ETP having treatment capacity of 250 m³/hr is adequate for cooling towers/spray pond overflow system overflow treatment system and no separate system of treatment for the treatment of overflow from cooling tower/spray pond.
- 5) Unit has submitted that they are using the entire quantity of ETP treated water in the process and any surplus water is stored in lined lagoon for usage in irrigation.
- 6) Unit has submitted that they have commissioned tertiary treatment system (MGF).
- 7) Unit has modified the pipe lines in the sugar plant.
- 8) Modification in drain gutters.
- 9) Preparation of cold water recirculation pits for cold water, pumps glands cooling, cold water recirculation, neutralization pits at D.M. plants, hot water recirculation tanks and soda water storage tank.
- 10) Installation of 04 nos of mini cooling towers of capacities 100 m³/hr, 150 m³/hr, 200 m³/hr and 100 m³/hr for cooling of boilers blow down water, turbine bearing cooling water, excess condensate water respectively and

WHEREAS, Unit has submitted the revalidated adequacy assessment report prepared by NSI, Kanpur vide letter dt. 15.03.2018 and the following is observed:

1. The Unit has an installed capacity of 10000 TCD and the average actual crush rate was 11500 TCD.
2. Necessary flowmeters are installed at major Unit operations, various consumption points and log book is maintained for flow meters.
3. Flowmeters have not been installed at ETP inlet and at some of the Unit operation i.e. mill & turbine cooling water or at centrifugal etc.
4. System for spray pond/process cooling tower overflow water treatment has not been installed.
5. The capacity of the ETP plant shall be adequate to handle the generated effluent from the plant at the rate of licensed capacity. However, modifications in the aeration system etc are to be carried out.
6. The generation of effluent from factory is 81.46 m³/hr i.e. 170 litres/ton of cane.
7. The aeration system may also be upgraded in aeration tank for providing diffused air; 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 (thereafter referred to as the Charter); and

WHEREAS, a meeting of sugar mills operating in 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 vide letter dated 14.08.2018 and 15.09.2018 has submitted their action plan and checkpoints of the Charter for water recycling and pollution prevention in sugar factories and checkpoints for bare minimum technology which was examined and following observations were made:

1. The Unit has submitted that it is following BMT for most of the processes.
2. The unit is having system to recycle water of SO₂ gas coolers.
3. The Unit is treating the overflow of cooling tower in their ETP with other effluent after sulphate removal process with Milk of Lime.
4. The unit is having pits for collecting pumps glands cooling water at boilers, condensate pumps, injection and spray pumps, at RVF to recycle the same.
5. The unit is having one surplus condensate cooling tower to cool the condensate water and using the same.
6. The unit is having closed loop of cold and hot water circulation systems.
7. The unit is using milk of lime in cooling tower to maintain the pH & being sent to ETP comprised with tertiary treatment plant having MGF & ACF.
8. Unit has submitted that they have adopted rain water harvesting system.
9. Unit has infrastructure for operation and maintenance of ETP, with 04 operators & one Senior Chemist with analytical facilities in Sugar lab.

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 Harinagar Sugar Mills Ltd., Harinagar, West Champaran, Bihar) is directed to comply with the following directions before commencement of crushing season 2018-2019;

1. The Unit shall operate within the licensed crushing capacity of 10,000 TCD and available treatment capacity of ETP.

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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 also.
7. The unit shall carry out colour coding of pipelines carrying recycled process water and fresh process.
8. The Unit shall commission mechanical sludge handling system of adequate capacity.
9. The unit shall carry out analysis of effluent discharge parameters notified under Environment (Protection) Rules, 1986 and logbook shall be maintained on daily basis.
10. 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.
11. 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 government expert institute namely NSI Kanpur, VSI Pune, IITs during crushing season & submit the report to CPCB within 45 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 Harinagar Sugar Mills Ltd., Harinagar, West Champaran, 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 (Sugar)**
Sugar Industries
Government of Bihar
Department of Sugarcane Development
Vikas Bhawan, New Secretarial
Patna – 800015 (Bihar)
2. **Member Secretary**
Bihar State Pollution Control Board,
Parivesh Bhawan, Plot No.-NS.-B/2
Paliputra Industrial Area,
Patliputra,
Patna – 800010 (Bihar)

: With request to ensure compliance
of the directions.

: For kind information, please.

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3. **Joint Secretary (CP Division)** : For kind information, please.

Ministry of Environment, Forest & Climate Change
Prithvi Block, Indira Paryavaran Bhawan,
Jorbagh Road,
New Delhi – 110 003

4. **District Magistrate** : For kind information, please.

West Champaran, Bihar

5. **Regional Directorate** :For follow up and ensuring compliance

Regional Director
Central Pollution Control Board, PICUP Bhawan,
Ground Floor, Vibhuti Khand, Gomti Nagar,
Lucknow – 226 010

6. In-charge, IT Division, CPCB : For uploading on CPCB website

7. Master file/Guard file WQM II, CPCB Delhi : For record



(PRASHANT GARGAVA)
MEMBER SECRETARY