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14 November 2018

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To,

**M/s HPCL Bio-fuels Limited
NH28B, Lauriya Bagaha Road,
Lauriya, West Champaran,
Bihar-845453**

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 HPCL Bio-fuels Limited, Lauriya, West Champaran, 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, 1986 to remain closed till compliance with the following directions:

- i) The Unit shall submit the following reports to CPCB duly validated by reputed institutions like National Sugar Institute, Kanpur/Vasantdada Sugar Institute, Pune /IITs within 60 days;
 - a) ETP adequacy assessment reports.
 - b) Time bound action plan for ETP augmentation & upgradation upto tertiary treatment level; to comply with the standards notified G.S.R. 35 (E), MoEF & CC, January 14, 2016 for effluent disposal, & waste water conservation.
 - c) Water audit and mass balance report to establish waste water generation rate.
 - d) Action Plans to achieve the notified effluent discharge quality and generation standards.
 - e) Irrigation management plan as per the new notified standards on January 14, 2016.
- ii. The Unit shall restrict the storage capacity of lined lagoon upto 15 days of effluent generation.
- iii. The Unit shall meet the BOD-30mg/l standards for discharging any effluent on land /surface water body whereas effluent stored in lined lagoons/tanks of capacity not more than 15 days shall comply with BOD-100 mg/l standards.

2. The Unit shall stabilize the ETP by September 2017 before commencing of the new crushing season. The unit will not be allowed to resume manufacturing operations till stabilization of ETP system.
3. The Unit shall upgrade of process technology, ETP system & adapt the best practice in a time bound manner and submit a report to CPCB before starting the next crushing season.
4. The Unit shall seek permission from CPCB, after compliance with the above mentioned directions before resumption of manufacturing operations; and

WHEREAS, CPCB received reports on Water Balance and ETP adequacy and Utilization of Treated Effluent for Irrigation Purpose prepared by NSI, Kanpur from the Unit vide letter dated 09.10.2017; 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).
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 HPCL Bio-fuels Limited, Lauriya, West Champaran, Bihar) was inspected on 10.01.2018 by officials from CPCB, 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 30.09.2018.

3. The Unit has installed Effluent Treatment Plant (ETP) which is comprised of Oil and Grease trap, Equalization Tank, Primary Clarifier, Aeration Tank, Secondary Clarifier, Activated Carbon & Sand Filter and Sludge Drying Beds.
4. The analysis of treated effluent sample shows pH-6.58 as against norms of 5.5-9.0, **BOD-76 mg/l** against norms of 30 mg/l, COD-104 mg/l against norms of 250 mg/l and TSS-19 mg/l against norms of 30 mg/l which indicates non-compliance w.r.t. BOD with the effluent surface discharge norms prescribed under Environment (Protection) Rules, 1986.
5. Total effluent discharge is estimated to be 137 L/tonne of cane crushed.
6. MLSS in aeration tank was **1457 mg/l**.
7. Flow meters were not found at the inlet, outlet of ETP, Spray pond overflow and other unit operations.
8. The Unit has installed OCEMS and provided connectivity with CPCB server.
9. The Unit has not submitted revalidated ETP adequacy assessment report within 45 days from the date of resumption of operation to CPCB; and

WHEREAS, a show cause notice dated 26.04.2018 under Section 5 of the Environment (Protection) Act, 1986, was issued to the Unit; and

WHEREAS, Unit reply vide letter dated 20.06.2018 and 01.10.2018 were examined and the following points were observed;

1. The Unit has installed the ETP system upto tertiary stage and OCEMS system is connected with sever of CPCB.
2. The unit have all valid consent under Water (Prevention and control of Pollution) Act, 1974 and Air (Prevention and control of Pollution) Act, 1981 upto 30.09.2018 and had applied for renewal.
3. Unit has submitted the validation report of ETP performance prepared by NSI, Kanpur.
4. The unit has installed effluent treatment plant (ETP) which is comprised of oil and grease trap, equalization tank, primary clarifier, aeration tank, secondary clarifier, tertiary treatment system (activated carbon, sand filter), sludge drying beds and separate system of treatment of spray pond over flow water.
5. The unit has claimed that treated water is under norms and treated water is used for irrigation as per irrigation management plan prepared by NSI, Kanpur.
6. The unit has effluent discharge of 176 L/T of cane crushed.
7. The unit has installed flow meters at inlet and outlet of ETP; and

WHEREAS, Unit has submitted the validation report of ETP adequacy vide their letter dated 01.10.2018, which was examined and the following is observed:

1. The licensed capacity of sugar factory is 3500 TCD with 20 MW cogeneration, while the average actual crush rate was observed at 2730 TCD.
2. Flowmeters installed at cooling tower overflow, inlet of ETP, borewell.
3. The Unit has constructed impermeable lagoon of 10336m³ for storage of treated effluent.
4. System for spray pond/process cooling tower overflow water treatment was under erection.
5. The capacity of ETP plant shall be adequate to handle the generated effluent from the plant at the operating capacity of 3500TCD.
6. Condensate Polishing Unit of 100m³/hr has been installed and started working; 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 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

AND WHEREAS, the Unit has submitted the implementation status of Charter for Water Recycling & Pollution Prevention in Sugar Factories situated in Ganga basin, BMT check points and monitoring protocol for charter implementation vide their letter dated 01.10.2018 which are examined and following are observed;

1. Flowmeters at various unit operations for fresh water and hot water usage has been installed.
2. Unit has installed flow meter at various points to determine effluent generation from major sources.
3. For combined treatment of effluent, unit has upgraded the ETP for removing sulphates and ETP parameters with MPS and tertiary treatment plant having MGF and ACF.
4. Oil skimmer is installed, pH correction tank has been upgraded
5. Unit has opted dry cleaning of factory floors using bagasse instead of wet cleaning.
6. Unit has developed proper infrastructure for operation and maintenance of ETP by recruiting required technical staff.
7. Unit has developed analytical facilities for analysis of various streams of water.
8. Unit has adopted the rainwater harvesting system.

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 HPCL Bio-fuels Limited, Lauriya, West Champaran, Bihar) is directed to comply with the following directions before commencement of crushing season 2018-19;

1. The Unit shall operate only after obtaining valid consent to operate from SPCB.
2. The Unit shall operate within the installed crushing capacity of 3500 TCD and available treatment capacity of ETP.
3. The unit shall implement the observation & recommendation of the revalidated adequacy assessment of ETP.
4. 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.
5. The unit shall install flow meters at major areas of cold and hot water consumption.
6. The unit shall install flow meters for measuring generation of effluent from various prominent areas.
7. The unit shall maintain logbook for individual process unit for recording daily water consumption and effluent generation also.
8. The unit shall carry out colour coding of pipelines carrying recycled process water and fresh process.
9. The Unit shall commission mechanical sludge handling system of adequate capacity.
10. The unit shall carry out analysis of effluent discharge parameters notified under Environment (Protection) Rules, 1986 and logbook shall be maintained on daily basis.
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 government expert 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 HPCL Bio-fuels Limited, Lauriya, 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**
Sugarcane Industries,
Government of Bihar
Department of Sugarcane Development
Vikas Bhawan, New Secretariat
Patna-800015

:With request to ensure compliance of the directions.

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.

3. Joint Secretary (CP Division)

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

:For kind information, please.

4. The District Magistrate

West Champaran, Bihar

:For kind information, please.

5. The Regional Directorate

Regional Directorate
Central Pollution Control Board,
southern Conclave, Block-502,
5th & 6th Floor, 1582, Rajdanga Main Road,
Kolkata – 700 107 (W.B.)

:For follow up and ensuring compliance

6. The In-charge, IT Division, CPCB

: For uploading the direction on CPCB website

7. Master file/Guard file WQM II, CPCB Delhi

: For record

(PRASHANT GARGAVA)
MEMBER SECRETARY