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To,

M/s Simbhaoli Sugar Limited
Unit-Brijnathpur (Distillery unit)
Dist. Hapur
Uttar Pradesh-245101

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. Simbhaoli Sugars, Brijnathpur (Distillation Unit) ,Uttar Pradesh (hereinafter referred as 'the Unit') is involved in the manufacturing production of extra neutral alcohol and rectified spirit using molasses as raw material ;and

WHEREAS, CPCB issued directions to UPPCB Under Section 18(1)(b) of Water Act, 1974 dated 22/12/2016 to further direct the unit to stop all manufacturing operations until implementation of the ZLD action plan; and

WHEREAS, UPPCB issued direction dated 12.01.2017 under section 33(A) of water Act, 1974 to the unit to close down all its manufacturing operations till implementation of the prescribed plan action for ZLD; and

(Contd...2/-)

WHEREAS, the unit was inspected by the officials of Central Pollution Control Board (CPCB), Delhi on 3.01.2017 for the verification of compliance by the unit and following observations are made during the inspection;

1. The unit is a molasses based distillery having installed capacity of 60 KLD. During the visit the unit was in operation, although closure direction is already issued to the unit regarding non-compliance of ZLD action plan.
2. The unit has installed Bio-digestor, followed by R.O plant and bio composting plant for the management of spent wash. Bio-digestor is having installed capacity of 18,720 m^3 and R.O is having capacity of 720 KLD.
3. The RO was found to be in non –operational stage, which is not is working since17/12/2016.
4. The unit has not installed flow meter at spent wash. The unit has no demarcation of storm water drain and effluent drain.
5. During the inspection live discharge was observed .One bypass line from distillery unit was found. The waste water discharged from the unit is mixed with sugar ETP outlet waste water and fall into nearby drain.
6. Sample of the effluent was taken; analysis report indicates that the value of **COD-1250 mg/l, BOD-411 mg/l, TDS-1544 mg/l** and **TSS-1079 mg/l** are much higher than the prescribed standards.
7. The unit is violating the consent conditions and the direction issued by CPCB earlier in this regard and is supposed to utilise the entire effluent in bio composting.

AND WHEREAS, CPCB issued closure direction dated 02.03.2017, under section 5 of Environment Protection (Act), 1986 to the unit to comply with the following directions:

1. To immediately discontinue the practice of discharging of untreated effluent and dismantle the bypass arrangements.
2. Implement the Zero Liquid Discharge (ZLD) action plan, as per the direction of CPCB & UPPCB.
3. Implement all the systems required for OCEMS, as per the Direction of CPCB.
4. The unit shall submit adequacy assessment report of the ETP system/up gradation plan prepared by reputed institution like Vasantdada Sugar Institute, Pune, National Sugar Institute, Kanpur, IITs etc.

AND WHEREAS, the unit reply vide letter dated 01 May, 2017, was examined and following observations were made:

1. The unit has informed that the unit has installed Bio- digester, followed by R.O plant and Bio-composting plant for management of spent wash. The RO plant was not in working condition due to maintenance work of the plant.
2. The unit has informed that they have installed and connected flow meters at requisite positions.
3. The unit has informed that the live discharge might be the drain water from the offices, guest house and canteen.

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4. The unit informed that the analysis report of the sample taken from nearby drain indicates that the sample may not be industrial effluent, as the values of industrial effluents are much higher as compared to the analysis report.
5. The unit has installed Multi Effect Evaporator (MEE) having capacity of 600 KL to implement the ZLD action plan directed by CPCB and UPPCB.
6. The unit has submitted adequacy assessment report of their ZLD system by National Sugar Institute.

AND WHEREAS, as per UPPCB letter dated 09.6.2017, the unit has submitted the adequacy report to CPCB; and

WHEREAS, on the basis of adequacy assessment report provided by M/s Simbhaoli Sugars, Brijnathpur U.P, following observations made;

1. The report is very brief as no performance details are given. Similarly, no plant details/specifications are provided.
2. Though the plant was not in operation, it could have been possible to collect plant performance data from the distillery plant records/log books or historical trends available in the software.
3. Production details sourced from Excise submitted data could have been given in the report. This could have included total molasses consumed, total alcohol produced, number of working days/annum. This could help in ascertaining the capacity of the distillery.
4. Raw Spent wash (RSW) solid content is mentioned as 21 % where as COD is mentioned as 1,20,000 ppm. This seems to be impossible. With 8.0 % v/v alcohol in fermentation coupled with multipressure distillation system, it is impossible to achieve 21 % solids in RSW. And if the solids are 21 %, then the COD of that RSW should be around 2,10,000 ppm and not 1,20,000 ppm as mentioned in the report. This seems to be the main discrepancy in the report.
5. The COD of Bio-methananted Spent wash (BSW) is shown as 30,000 ppm. The COD is reduced from 1,20,000 ppm to 30,000 ppm which means that the COD reduction achieved is 75 %. This looks to be on very higher side. If that is the COD reduction achieved then what is the average biogas generation. This could have been ascertained from the logbooks of the biogas plant but no such details are given in the report.
6. Similarly, no Reverse Osmosis (RO) or Multiple Effect Evaporation (MEE) plant details /specifications are provided. No logbook data is provided in the report on performance of these plants. No performance details are given.
7. Exactly how much BMSW is fed to the RO plant and and how much BMSW is fed to the MEE plant is not given in the report.
8. No details are given on the design basis of MEE plant such as water evaporation duty.
9. Nowhere in the report the characteristics of RSW or BMSW or reject of RO plant or Concentrate of MEE plant has been given.

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10. No details on availability, consumption and requirement of Press Mud Cake (PMC) are given. This could have been ascertained from the sugar mill operation data and material balance of bio-composting process.
11. No details are also given on ratio of Concentrated SW to PMC achieved in bio-composting process.
12. It is mentioned that the storage capacity of the SW lagoon is 3000 M^3 but no details on dimensions of this tank are provided. How many days the SW is stored is not clear from the report.
13. Under the ETP plant and machinery details, it is mentioned that the bio-methanation tank capacity is 720 M^3. The digester capacity should be around 12000 M3 for effective bio-methanation. If it is the feed rate to the digester then it should be indicated as 720 M3/day feed. What is meant by capacity is not clear? The figures given in this table are really (RO plant 600 M^3, MEE plant 600 M^3) confusing. All these figures are confusing, misleading and has no sense.
14. In one place bio-compost yard area is given as 8 acres and in other it is mentioned as 93107 square meter.
15. Nothing is mentioned about the RO permeate or MEE plant process condensate treatment/disposal. It is not clear whether it is being treated and recycled back or it is being discharged. As per the CPCB norms nothing should go out. It should be ZLD system. In fact, it would be necessary to recommend installation of a Condensate Polishing Unit (CPU) for this purpose.
16. It is mentioned that on-line monitoring system is installed. But the exact location of installation of this system is not given. It is not clear as for what purpose this system is installed and what it is measuring? As per the CPCB norms, no online effluent monitoring system is required if it is a zero discharge system.
17. Nothing is mentioned about installation of piezometers, presence of bore wells and development of green belt around the - yard.

AND WHEREAS, CPCB issued closure direction dated 29 June, 2017 under section 5 of Environment (Protection) Act, 1986, to the unit to comply with the following directions;

1. The unit shall remain closed and submit revised report covering above mentioned observations duly validated by reputed institutions like National Sugar Institute, Kanpur, Vasantdada Sugar Institute, Pune and IITs to CPCB and UPPCB within 60 days:
   a) Assessment of the manufacturing technology for spent wash generation and adequacy assessment of ZLD system comprising of Biomethanation, RO, MEE, composting/incineration system and steam availability, etc.
   b) Water audit and mass balance reports to establish spent wash generation rate,
   c) Action Plans to achieve Zero Liquid Discharge(ZLD),
   d) To restrict lined effluent storage capacity to 30 days, and

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e) Assessments of availability of press mud, compost yard, composting process, sell of compost and compost quality.

2. The unit shall install mass flow meters with totalizer at inlet of ROs/MEE, outlet of MEE and to make arrangement for continuous online transmission of spent wash flow measurements (namely Weak Spent Wash, Strong Spent Wash)/ web camera data of Spent Wash generation, concentration & MEE operation by providing linkage to CPCB & UPPCB servers within 75 days.
3. The unit shall identify recipient drains/ rivulets and their u/s & d/s locations in consultation with UPPCB for monthly monitoring by industry to ensure ZLD from distilleries within 30 days. The monitoring report shall be submitted to CPCB on monthly basis.
4. The unit will provide documentary support for procurement/ availability of press mud, sell of compost and compost quality on monthly basis (by 10th of every month) to CPCB/UPPCB.

AND WHEREAS, the unit submitted adequacy assessment report prepared by NSI, Kanpur vide letter dated 13 Oct, 2017 and as per the adequacy assessment, following observations are made;

1. The unit has adopted fed –batch fermentation along with MPR Distillation and having adequate system to achieve ZLD.
2. The factory has adopted concentration of BMSW with RO plant upto about 18-20% solids.
3. The spent wash generation is estimated to be 8.77 L/L of alcohol production.
4. The unit has installed OCEMS and provided its connectivity to CPCB server.
5. The unit has identified the recipient drains, named Kadrabad drain, however the exact location need to be identified.
6. The unit needs to commission suitable process for treatment of MEE condensate.

AND WHEREAS, CPCB constituted a Three-Member Committee vide office order dated 27.09.2017 having representative from CPCB, MoEF & CC and NMCG for examination and recommendation for revocation of the closure direction issued by CPCB; and

WHEREAS, the Three-Member Committee in its meeting held on 16.11.2017 examined the case of the unit and recommended that the unit should commission suitable process for treatment of MEE condensate. The committee also recommended that the unit should submit completion certificate in this context. The completion certificate shall be validated by the same institute which has carried out the adequacy assessment and on receipt of such report, CPCB may process for revocation of directions without placing before the committee again; and

WHEREAS, the unit (M/s Simbhaoli Sugars Ltd.) submitted NSI, Kanpur report dated 18 Dec, 2017 on 05.12.2017 on verification of implementation/compliance by the unit and following observations are made;

1. The unit has installed flow meter at inlet and outlet of MEE.

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2. The unit has installed separate flow meter at various unit operations.
3. As reported the newly installed MEE shall be adequate for process. The existing RO (of capacity 720 KLPD) shall be used as CPU. The condensate of MEE is proposed to be used in the process, cooling tower make-up, ash quenching, cleaning etc.
4. The unit has started maintaining log book for bio-compost records.

NOW THEREFORE, in view of the above observations and in exercise of powers delegated under Section 5 of the Environment (Protection) Act, 1986, the closure direction dated 02.03.2015 & 29.06.2017 are hereby verified and revoked. The unit (M/s Simbhaoli Sugars, Ltd. (Brijnathpur-Distillery),) is directed to comply with the following directions;

1. The unit shall make arrangement for continuous online transmission of spent wash flow measurements (namely Weak Spent Wash, Strong Spent Wash)/web camera data of Spent Wash generation, concentration & MEE operation by providing linkage to CPCB & UPPCB servers within 45 days.
2. The unit shall provide documentary support for procurement/availability of press mud, sale of compost and compost quality on monthly basis (by 10th of every month) to CPCB/UPPCB in the prescribed format (enclosed).
3. The unit shall identify u/s & d/s locations in consultation with UPPCB for monthly monitoring by industry to ensure ZLD from distilleries within 30 days.
4. The unit shall provide copy of records of alcohol/rectified spirit production, spent wash generation (namely weak spent, strong spent wash) details of MEE operations, mass flow meter readings connected with CPCB server etc. on monthly basis (by 10th of every month) to CPCB/UPPCB.
5. The unit shall carry out monthly monitoring of the identified recipient drains (Kadrabad drain) at u/s & d/s location through lab recognised under Environment (Protection) Act, 1986 and shall submit the analysis report on monthly basis (by 10th of every month) to CPCB/UPPCB.
6. The unit shall submit the revalidated adequacy assessment report while the unit is in operation by the same institute which has conducted adequacy of assessment within 45 days after resumption of operation.

In case of default in compliance with the above directions by the Unit, CPCB will be constrained to initiate appropriate action against the unit (M/s Simbhaoli Sugars Ltd., Brijnathpur), in accordance with the provisions of the Environment (Protection) Act, 1986.

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(S. P. SINGH PARIHAR)
CHAIRMAN

(Contd...7/-)

Copy to:

1. **The Member Secretary**
   Uttar Pradesh Pollution Control Board,
   Building No. TC-12V,Vibhuthi Khand,
   Gomti Nagar, Lucknow – 226 010
   :With request to ensure that the unit comply with the directions

2 **The Advisor (CP Division)**
   Ministry of Environment, Forest & C.C
   Prithvi Block, Indira Paryavaran Bhawan,
   Jorbagh Road, New Delhi – 110 003
   : For information, pl

3 **The In-charge, Zonal Office**
   Central Pollution Control Board
   PICUP Bhawan, Ground Floor,
   Lucknow – 226 010.
   Vibhuti Khand, Gomti Nagar,
   : For follow up and ensuring compliance

4 **The District Magistrate,**
   Hapur-Uttar Pradesh
   : With request to ensure compliance of direction

5. **The Executive Engineer,**
   Madhyanchal Vidyut Vitran Nigam Ltd.,
   Head office. 4-A, Gokhele Marg
   Lucknow -226001
   : With request to re-connect the power supply for industrial operations, excluding power supply for residential purposes.

7. The In-charge, IPC-III, CPCB

8. The In-charge, IT Division, CPCB

9. Master file, Guard file, WOM-II, CPCB

A. SUDHAKAR
MEMBER SECRETARY

Central Pollution Control Board Format for evaluation of Distillery ETP performance

Format For Distillery

Name of the distillery:

Adress:

Capacity of the distillery:_____KLPD,_____ Lac lit/annum

Date	Raw Spent wash generation as per online mass flow meter		Raw Spent wash Total Solids	Cumulative Raw Spent wash generation as per online mass flow meter totaliser	Conc. Spent wash generation as per online mass flow meter		Conc. Spent wash Total Solids	Cumulative Conc. Spent wash generation as per online mass flow meter totaliser	Condensate quantity generated	Press Mud Cake (PMC) consumption		Concentrated Spent wash consumption		Concentrated spent wash to PMC ratio achieved	Bio-compost Produced	Quality of Bio-compost				Bio-compost Sold
	MT/Hr	MT/Day	%	MT	MT/Hr	MT/day	%	MT	MT/Day	MT/ Windrow	MT/ Month	MT/ Windrow	MT/ Month		MT/ Annum	N (%)	P (%)	K (%)	Moisture (%)	MT/ Annum

Note- Where per day data is not available, distillery can provide per month or per two months data

Central Pollution Control Board Format for evaluation of Distillery ETP performance

Format For CPCB Approved Vendors

Name of the distillery:

Adress:

Capacity of the distillery:_____KLPD,_____ Lac lit/annum

Date	Raw Spent wash generation as per online mass flow meter		Cumulative Raw Spent wash generation as per online mass flow meter	Conc. Spent wash generation as per online mass flow meter		Cumulative Conc. Spent wash generation as per online mass flow meter	Whether continuty of connectivity of cameras installed at bio-compost/spent wash storage is maintained	If continuety of connectivity is not maintained, please specify the duration of iterruption & reason
	MT/Hr	MT/Day	MT	MT/Hr	MT/day	MT	Yes/ No	