

**Speed Post**

B-190198/NGRBA(RG)/CPCB/Distillery/4/2016-17

February 19<sup>th</sup>, 2019

To,

**M/s Rai Bhadur Narain Singh Sugar Mills Ltd. (Distillery Division),  
Laksar, Distt. - Haridwar,  
Uttarakhand – 247663.**

**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. Rai Bhadur Narain Singh Sugar Mills Ltd (Distillery Division) Uttarakhand (hereinafter referred as 'the Unit') is involved in the production of extra neutral alcohol and rectified spirit using molasses as raw material; and

**WHEREAS**, CPCB issued direction dated December 7<sup>th</sup>, 2015 under Section 18 (1) (b) of Water Act, 1974, to Uttar Pradesh Pollution Control Board (UPPCB) in-order to comply with the following:

1. All the molasses based distilleries including yeast manufacturing units in the state shall be directed to achieve zero liquid discharge of effluent by following either of the two routes as specified below;
  - a. Installing systems for Solid separation for reduction in volume of spent wash and Evaporation – concentration or only Evaporation – concentration so as to reduce the volume to min. 40% with 30% solid conc. and water conservation by using appropriate technology such as R.O. & M.E.E. or only M.E.E. by **December 31, 2015**, followed by

bio composting with press mud from sugar industry by complying with conditioned specified below at S. No. 2; or

Installing system for Evaporation – concentration by using appropriate technology such as M.E.E. and Incineration boiler (Slope fired / mixed with aux. fuel, etc.), using appropriate technology by **March 31, 2016**.

- b. Installing advance process technologies (continuous fermentation, multi pressure distillation, integrated evaporation, etc.) for reduction of spent wash generation to 6-8 KL/KL of alcohol produced, by **March 31, 2016**, followed by evaporation – concentration and incineration, using appropriate technology such as M.E.E. and incineration boiler by **September 30, 2016**.
2. Industries opting for bio composting shall be directed to comply with the following within the given time frame;
- a. Obtaining valid registration/certification for the production and quality of bio-enriched Organic manure (bio compost) as per Gazette Notification S.O. 2776 (E) dated 10.10.2015 under the Fertilizer (Control) Fourth Amendment Order, 2015 issued by Ministry of Agriculture and Farmers Welfare (Dept. of Agriculture, Cooperation and Farmers Welfare) from the Ministry of Agriculture/ concerned agency – within a time period of four months.
  - b. The final storage capacity of concentrated spent wash after R.O. & M.E.E. or only M.E.E., utilized in bio composting shall be properly lined and made impermeable and shall be strictly restricted to thirty days equivalent of concentrated spent wash (40% by volume of spent wash generated) –by **31.03.2016**.
  - c. The finished bio-compost shall be packed in sealed poly bags super scribed with quality and composition of bio compost along with the name of the manufacturer industry. Industries shall not be allowed to sale compost in open tractors/trolleys.
  - d. The bio composting activity shall only be carried out under covered premises – by **31.03.2016**.

**AND WHEREAS**, CPCB issued direction dated November 11<sup>th</sup>, 2017 under Section 5 of the Environment (Protection) Act, 1986, to the unit to comply with the following directions;

1. The unit shall set up an Effluent Quality Monitoring division equipped with all water testing facilities and with trained staff of Environment Background.
2. The unit shall install mass flow at the inlet of MEE and provide its connectivity to CPCB before resumption of the operation
3. The unit shall restrict to its lagoons capacity upto 30 days of spent wash generation.
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 10<sup>th</sup> of every month) to CPCB/UEPPCB in the prescribed format.

5. The unit shall carry out monthly monitoring of u/s & d/s location of the Laksar drain through E(P)A recognised laboratory and shall provide the data by 10<sup>th</sup> of every month to CPCB/UEPPCB.
6. The unit shall use concentrated spent wash: press mud ratio of 1:1.6 and shall provide documentation support for procurement/ availability of press mud, sell of compost and compost quality on monthly basis (by 10<sup>th</sup> of every month) to CPCB/UEPPCB in the enclosed prescribed format.
7. The unit shall submit the implementation status report of action taken against the recommendation of adequacy report within 15 days and shall submit the revalidated adequacy assessment report carried out by the institute which has conducted adequacy of assessment and submit the reports within 45 days after resumption of operation.

**AND WHEREAS,** CPCB received compliant dated October 4<sup>th</sup>, 2018 from Regional office, UPPCB, Muzaffarnagar regarding discharge from M/s RBNS Sugar Ltd. (distillery division) at Laksar and its impact on water quality of Ban Ganga, River Saloni at Shukratal ghat and fish mortality; and

**WHEREAS,** CPCB received compliant dated October 24<sup>th</sup>, 2018 from Member Secretary, UPPCB, regarding discharge from M/s RBNS Sugar Ltd. (distillery division) at Laksar and its water quality of Ban Ganga, River Saloni at Shukratal ghat and fish mortality; and

**WHEREAS,** CPCB officials conducted an inspection of the Unit on 19<sup>th</sup> and 20<sup>th</sup> November, 2018. The following observations and recommendations are made:

1. The molasses based distillery division of M/s RBNS Sugar Ltd. was found operational. The unit is producing rectified spirit, ENA and ethanol with installed production capacity of 60 KLD.
2. The unit has applied for the valid consents of Water & Air Acts.
3. The unit has started its operation after the rainy season on 01.10.2018. The unit is treating raw spent wash in the anaerobic digester. After extracting the biogas through the biomethanation process, biomethanated spent wash is concentrated in the Multi Effect Evaporator (MEE). The concentrated spent wash is stored in lagoons for bio composting and process condensate is treated in the Condensate-Polishing Unit (CPU).
4. The unit has four stage falling film evaporator bodies and two force circulation bodies installed as Multi effect evaporator (MEE) with a feeding capacity of 840KLD.
5. The unit has installed the condensate polishing unit (CPU) with a capacity of 1050 KLD, comprising of equalization tank, UASB, aeration tank, clarifier and lamella. The unit has installed the flow meter at the inlet of CPU without totalizer and there is no flow meter at outlet of CPU. The unit recycled the treated water from CPU into the cooling tower.
6. The concentrated spent wash is stored in lagoon for use in bio composting. The unit has total bio-compost area of 57564m<sup>2</sup> (14.22 acres) and only 1405 m<sup>2</sup> (0.35acres) is covered with the shed; which is just 2.5 % of the entire compost area.

7. The unit has five lagoons with a capacity of 3500m<sup>3</sup>, 2744m<sup>3</sup>, 1925m<sup>3</sup>, 1925 m<sup>3</sup> & 1372 m<sup>3</sup> with total capacity of 11466 m<sup>3</sup>.
8. Four lagoons within the unit's premises have storage of raw spent wash, biomethanation spent wash, MEE feed and MEE product separately, which is in violation of CPCB direction dated 07.12.2015 where it is clearly stated that the unit could store only concentrated spent wash for bio- composting. All the four-lagoons are located in the unit's premises near Laksar drain. The unit has constructed one lagoon near the bio compost yard, outside the unit's premises for storage of concentrated spent wash.
9. Laksar drain pass through the premises of the distillery unit.
10. During the inspection the lagoon which stored the biomethanated spent wash was found completely filled and about to overflow and chances of overflow from the lagoon into Laksar drain could not be ruled out.
11. The sample was collected from Laksar drain near the lagoons and the analysis of the samples shown below

Sampling Points	pH	BOD	COD	TSS	TDS	Colour
Laksar drain inside the premises	7.43	33	148	61	748	76

\*All the concentration are expressed in mg/l except pH and colour. Colour is in Hazen units

12. The biomethanated spent wash is concentrated using MEE. During the inspection MEE was found operational and mass flow meters are installed at the inlet and outlet of MEE and flow meter reading of MEE inlet was 11595393 and outlet of MEE concentrate was 43512207. As per the data the average feed in last 13 working day was 329617kg and MEE product (concentrate) was 124389.2 kg and the value of MEE product (condensate) was 205228.4kg.
13. The MEE concentrate is stored in lagoon (two nos.) for use in bio composting and MEE condensate along with the spent lees and blow down of the cooling tower are treated in the condensate-polishing unit. The unit has installed the flow rate meter at inlet of CPU without totalizer. During the inspection the CPU was not fully operational. Only the aeration tank process was operational. Clarifier and lamella were found non-operational and there was no overflow at the clarifier. At the time of inspection, the flow at the inlet was 2.3m<sup>3</sup>/hr. The sample was collected from the outlet of CPU.
14. The analysis of the treated effluent from CPU shows

Sampling Points	pH	BOD	COD	TSS	TDS	Colour
CPU outlet	8.83	41	178	124	1880	48

\*All the concentration are expressed in mg/l except of pH and colour. Colour is in Hazen units

15. The unit has two cooling towers and at the time of inspection only one cooling tower was operational.
16. Spillage of concentrated spent wash was observed in the compost yard area. The unit has not demarcated the press mud area and bio-composting operation. The unit has not marked the lagoon in the bio-compost yard.
17. The ground water samples were collected outside the premises of the unit and as per physical observation colour of the ground water was pale yellow.
18. Ponding of wastewater was observed near Akhoda Kalan village, due to overflow and spillage from Laksar drain outside the unit's premises. Analysis of sample collected from the pond shows pH -7.97, BOD-165mg/l, COD- 683mg/l, TSS-58mg/l, TDS-2772mg/l and Colour -763Hazen, which indicates discharge of effluent in the past. Possibility of the discharge/overflow of spent was from the unit from Laksar drain could not be ruled out.
19. The analysis results of the sample collected from the units and u/s and d/s locations of the Laksar drain are presented below:

S. no	Sampling Points	pH	BOD	COD	TSS	TDS	Colour	TS
1.	MEE Concentrate from lagoon at Bio-compost site	7.36	51230	172007	-	-	49700	2,01000
2.	Upstream of Laksar drain	7.32	59	172	328	584	25	
3.	Downstream of Laksar drain	7.35	16	59	11	612	45	
4.	Ground water outside the unit premises	7.6	-	BDL	-	680	BDL	

\*All the concentration are expressed in mg/l except of pH and Colour in Hazen units

20. The unit has total lagoon capacity of 11466m<sup>3</sup> which is in excess of 30 days equivalent of concentrated spent wash which comes to 6105.6m<sup>3</sup>, which is in violation of CPCB directions.
21. The unit has not installed flow meters at the borewells for the extraction of ground water.

**It is evident that the unit has violated CPCB direction dated 7.12.2015 and large quantity of untreated/partially treated effluent is being stored and discharged into Laksar drain and nearby land posing potential threat of surface water/ground water contamination.**

**NOW, THEREFORE,** in view of the above and in exercise of the powers delegated to the Chairman, Central Pollution Control Board (CPCB) under section 5 of the Environment (Protection) Act, 1986, **the Unit is directed to close down all its manufacturing operations with immediate effect and report the same to CPCB immediately and not to restart its manufacturing operations till the compliance of following directions:**

1. The unit shall restrict the lagoon capacity to 30 days equivalent of concentrated spent wash and to dismantle /excess lagoon capacity immediately.

2. The Unit shall submit time bound action plan for the disposal of stored spent wash as per the direction dated 07.12.2015 through ZLD route comprising of MEE and biocompost.
3. Spillage /discharge of spent wash into Laksar drain shall be stopped and the Unit shall take adequate measure to ensure no such accidental spillage will take place and submit detailed report to CPCB.
4. The Unit shall remediate & restore water quality of Laksar drain and site of ponding at Akhoda Kalan Village.
5. Adequacy of CPU shall be assessed by reputed institute and shall be made operational to ensure ZLD.
6. The Unit shall immediately discontinue the practice of discharging partially treated effluent outside the Unit premise on open land.
7. The Unit shall immediately discontinue the practice of storing untreated effluent in the lagoons. It may only store concentrated spentwash after MEE.
8. The Unit shall improve its housekeeping practices to avoid overflowing of lagoons and spillage of spentwash into Laksar drain.
9. The Unit shall install flow meters at the borewells for extraction of ground water.
10. The Unit shall seek permission of CPCB before resumption of manufacturing operations.

In case of default in compliance with the above directions by the Unit, CPCB will be constrained to initiate appropriate action against the Unit, in accordance with the provisions of the Environment (Protection) Act, 1986.

(S. P. Singh Parihar)  
CHAIRMAN

**1. The Chairman**

Uttarakhand Pollution Control Board,  
29/20 , Nemi Road, Dehradun,  
Uttarakhand"Building

With request to ensure that the Unit complies with the directions.

**2. The 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.

**3. The Regional Director**

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

: For follow up and ensuring compliance

**4. The District Magistrate,**

Haridwar-Uttarakhand.

With request to ensure compliance of  
closure direction

**5. The Superintending Engineer,**

Uttarakhand Power Corporation Ltd.,  
Old diesel power house  
(opposite saint paul school)  
Kathgodam haldwani, District -Nanital  
Uttarakhand

With request to dis-connect the power  
supply for industrial operations.  
However, power supply for domestic  
and security purposes to continue.

✓ **6. The In-charge, IT Division, CPCB**

**7. Master file/Guard file WQM-II Division**

  
(Prashant Gargava)  
MEMBER SECRETARY