

**Speed Post**

B-190198/NGRBA(RG)/CPCB/Distillery/4/2016-17 7948

Dated: 14<sup>th</sup> Oct, 2019  
21<sup>st</sup>

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 Uttarakhand Environment Protection and Pollution Control Board (UEPPCB) 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 documentary 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 were 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 bio-methanation process, bio-methanated 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 bio-methanated 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 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 7560m<sup>3</sup>, which is in violation of CPCB directions.
20. 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*

21. The unit has not installed flow meters at the bore wells for the extraction of ground water.

**WHEREAS,** CPCB issued closure direction dated 19.02.2019 under section 5 of Environment (Protection) Act, 1986 to the unit to comply with the 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 bio-compost.
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 spent wash after MEE.
8. The unit shall improve its housekeeping practices to avoid overflowing of lagoons and spillage of spent wash into Laksar drain.
9. The unit shall install flow meters at the bore-wells for extraction of ground water.
10. The unit shall seek permission of CPCB before resumption of manufacturing operations.

**AND WHEREAS,** the unit reply vide letter dated 09.03.2019 was examined and following observations are made;

1. The unit has stopped its manufacturing operations with effect from 06.03.2019.
2. The unit has restricted the lagoon capacity to 30 days equivalent of concentrated spent wash by isolating two of its lagoon having capacity 2744 m<sup>3</sup> & 3500 m<sup>3</sup>.
3. The unit has assures that 4000m<sup>3</sup> of spent wash should be utilized through the route of ZLD i.e. bio-methanation followed by MEE followed by bio-composting.

4. The unit has submitted the analysis report of upstream and downstream of drain for the month of Jan, 2019.
5. The unit has submitted the analysis report of drain of Akhoda Kalan Village for the month of Feb, 2019.
6. The unit has informed that no such practice of discharging the spent wash is being carried out.
7. The unit has assured that no raw spent wash will be stored in the lagoon.
8. The unit has informed that housekeeping has been improved.
9. The unit has installed flow meter in distillery and sugar unit.

**AND WHEREAS** District Magistrate, Haridwar vide letter dated 22, March, 2019 informed that the Sub district magistrate of Laksar along with officials of revenue department inspected the unit and as per their report dated 18.03.2019, all the five lagoons were found completely full with spent wash and the inspection team was informed that two of five lagoons will be emptied within 07 days; and

**AND WHEREAS**, the unit was inspected by the officials of Central Pollution Control Board(CPCB), Delhi on April 9-10, 2019 for the verification of compliance status of the unit and following observations are made during the inspection;

1. On the day of inspection, the unit was found non-operational. It was reported that, unit has stopped its production from 06.03.2019 after receipt of the closure direction dated 19.02.2019 issued by CPCB. However, as reported by the unit, MEE was operated till 15.03.2019 for concentration of stored raw/bio-methanated spent wash.
2. The unit has installed CPU (Condensate Processing Unit) for treatment of condensate generated from Sugar unit and distillery unit. The CPU was found operational using pre stored condensate in the holding tank from the Sugar unit. CPU comprises of Biological treatment (UASB reactor followed by Activated Sludge Process). The UASB reactor was found dysfunctional and non-operational since long and the same was observed in previous inspection also.
3. The samples from the holding tank, aeration tank and outlet of secondary clarifier (of CPU) were collected for analysis. Analysis of sample from aeration tank shows MLSS-561mg/l which indicates unestablished aeration tank.
4. The unit has informed that treated water from CPU is being utilized in cooling tower.
5. The unit has installed flow meter at inlet & outlet of CPU.
6. The unit has installed mass flow meter with totalizer at the inlet and outlet of MEE and provided its connectivity to CPCB server.
7. As per the data submitted by the unit, it was observed that unit has operated its manufacturing operations till 06.03.2019 further, as informed by the unit its MEE was operated from 06.03.2019 to 15.03.2019 to concentrate the stored spent wash from lagoon no. 4 & 5.
8. For utilization of concentrated spent wash generated from 60 KLD molasses based distillery unit, the total compost area available is 14.22 acres, which is adequate.
9. Lagoons no- 4 and 5 having total capacity of 6244 m<sup>3</sup> capacity (i.e. 2744 m<sup>3</sup> and 3500 m<sup>3</sup> respectively) are emptied by the unit to restrict its 30 days of storage capacity of concentrated spent

wash. Spent wash feed arrangement system such as pump and pipeline to lagoon 4 & 5 have also been found dismantled. The unit has informed that around 4000 m<sup>3</sup> of spent wash was stored in these two lagoons which was concentrated through MEE and used in bio-composting, however MEE log book data shows that only 1394 m<sup>3</sup> of spent wash was passed through MEE during 7.03.2019-15.03.2019. It indicates that about 2606 m<sup>3</sup> (4000 - 1394 m<sup>3</sup>) of spent wash was not concentrated through MEE and possibilities of illegal disposal could not be ruled out.

10. The total available storage capacity of lagoons 1, 2, 3 & 6 is 6022 m<sup>3</sup> including one 800 m<sup>3</sup> capacity lagoon for storage at bio-compost yard of concentrated spent wash. Lagoons 1, 2, & 3 are located within the units premises while lagoon no.6 is located at bio-compost yard.
11. The bio-compost yard is located at about 1 km from the lagoons (no.1, 2 &3). The unit has provided a pipe line for pumping of concentrated spent wash from lagoon (1, 2 & 3) for storage in lagoon (no. 6, having capacity 800 m<sup>3</sup>). The stored conc. spent wash from lagoon 6 is used for bio-composting.
12. The unit has installed one flow meter at the borewell for extraction of ground water.
13. The sludge from bio-methanation unit (CSTR) was found lying on open land. The unit informed that the sludge has been kept for natural drying.
14. Spent wash was found on unlined area away from active compost area having possibility of ground water contamination.
15. At bio-compost yard only one catch drain was observed and found filled with press mud, whereas as per SOP for Bio-Composting by the distilleries, unit should have catch drain and leachate pits all around the compost yard.
16. Press mud was observed lying on un-lined land area in the compost yard and outside of the distillery premises.
17. The emptied lagoons no.4 and 5 were found to be filled with approximately 1/3 of sludge.
18. The analysis result of the sample collected from the ground water sample from hand pump outside the unit (near Gurudwara) shows colour pH-7.5, COD-109 mg/l, TDS-734 mg/l, Conductivity 1130µ/cm, Chloride-71mg/l, Total Hardness-132 mg/l, Flouride-0.4mg/l, Sulphate-26mg/l, NO-NO<sub>3</sub>-26 mg/l and colour 73 Hazen respectively, which indicates contamination of ground water.
19. The samples were collected from nearby local drains, Solani River from 2-3 km of upstream of industry, different locations of Laksar drain including before and after confluence with river Ban ganga.
20. The analysis results of the samples collected are as follows;

Sl. No.	Sample location (Latitude, Longitude)	pH	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	TDS (mg/l)	TS (mg/l)	Colour* (HAZEN)	MLSS*	MLVSS* (%)
1.	Hadva Drain near Narojpur village (29.752926, 78.00034)	7.28	02	06	250	472	708	12	-	-
2.	Drain near Bhurni-Khatarpur village (29.7477, 78.0164)	7.34	34	74	130	720	840	34	-	-
3.	Drain near Cavendis Industry (29.7335, 78.0111)	7.43	04	10	34	760	784	18	-	-

4.	Upstream of Laksar Drain (29.7492, 78.0246)	7.50	43	117	138	712	840	33	-	-
5.	Laksar Drain (at the end point of Distillery section of RBNS) (29.7451, 78.0325)	7.02	247	1211	1876	1776	3648	168	-	-
6.	Downstream of Laksar Drain (Last end of RBNS) (29.7451, 78.0325)	7.19	118	272	234	948	1172	183	-	-
7.	Laksar Drain besides covered compost yard (29.7488, 78.0300)	7.46	11	40	25	1160	1140	37	-	-
8.	Ponding found at the backside of the covered compost yard of the unit	5.84	33843	142720	-	-	191440	97305	-	-
9.	CPU treated water	6.52	03	12	13	388	388	18	-	-
10.	Feed to Equalization tank of CPU	8.71	213	412	BDL (<10)	240	276	21	-	-
11.	Aeration tank of CPU	-	-	-	-	-	-	-	561	78
12.	Lagoon-03 of 1372 m <sup>3</sup> capacity	5.88	124526	292615	-	-	357740	194610	-	-
13.	Lagoon-02 of 1925 m <sup>3</sup> capacity	7.42	63735	150154	-	-	179600	160179	-	-
14.	Laksar drain flowing inside the industry between lagoons	7.23	121	383	306	960	1280	112	-	-
15.	800 m <sup>3</sup> capacity lagoon near covered compost yard	5.67	148039	314769	-	-	338380	158682	-	-
16.	Ponding found besides 800 m <sup>3</sup> capacity lagoon near covered compost yard	6.91	46098	166615	-	-	172720	95808	-	-
17.	Culvert between Akhoda and Kharanja village (29.7328, 78.0366)	7.39	232	648	347	332	668	138	-	-
18.	Hadva Drain at Paudivali-Khanpur village after meeting of laksar drain in a pond (29.6619, 78.0302)	6.99	12	55	14	2412	2432	28	-	-
19.	Hadva Drain before confluence with Badganga (Near Sampur village) (29.623833,	7.50	14	54	10	380	400	22	-	-



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Sl. No.	Sample location (Latitude, Longitude)	pH	Conductivity (mho)	TDS mg/l	COD (mg/l)	Chloride (mg/l)	*Total Hardness as CaCO <sub>3</sub> (mg/l)	*Colour (Hazen)
20.	Solani River (River Water Sample) (29.7552, 78.0484)	7.6	608	382	11	30	288	BDL
21.	Ground Water sample	7.5	1130	734	109	71	132	73
22.	Pathri river downstream of Industry (near Kuri village) (29.6953, 78.0593) (20)	7.7	532	330	08	21	260	12
23.	Badganga river after confluence of Hadva drain (Near Sampur village) (29.6284, 78.0174)	7.7	632	372	06	18	288	10
24.	Badganga before confluence with Hadva drain (Near Sampur village) (29.752926, 78.00034)	7.8	504	300	BDL	18	260	BDL

21. The characteristic of wastewater sample collected from ponding found at the backside of the covered compost yard of the unit have pH -5.84, BOD- 33843 mg/l, COD- 142720 mg/l, TS- 191440 mg/l, and colour-97305 Hazen indicates spillage of spent wash, not utilized for bio-compost.
22. The wastewater sample collected from ponding beside 800 m<sup>3</sup> capacity lagoon having pH- 6.91, BOD- 46098 mg/l, COD- 166615 mg/l, TS- 172720 mg/l and colour-95808 Hazen indicates spillage of spent wash.
23. Characteristics of spilled spent wash samples collected at bio-compost yard indicate that raw spent wash with solid content 17.27 to 19.14% is being used for bio-composting, and the unit is bypassing MEE system, which is in violation of CPCB direction.
24. Samples collected from spent wash storage lagoons no. 3 (1375m<sup>3</sup> capacity) and 2 (1925m<sup>3</sup> capacity). Spent wash stored in the lagoon 3 having COD-292615 mg/l, BOD-124526 mg/l, TS-357740 mg/l and colour 194610 Hazen is concentrated spent wash with (TS=35.7%) whereas in case of lagoon 2 stored spent wash having COD- 150154 mg/l, BOD- 63735mg/l, TS- 179600 mg/l and colour 160179 Hazen indicates storage of raw spent wash with total solids 17.96% /or dilution with raw wash.
25. The wastewater sample collected from 800 m<sup>3</sup> capacity lagoon have pH- 5.67, BOD- 148039 mg/l, COD- 314769 mg/l, TS- 338380 mg/l and colour 158682 Hazen indicates the stored spent wash is concentrated with >30% Total solids.

26. It may be concluded that spent wash stored in lagoon no.2 with volume 1925 m<sup>3</sup> and solid content 17.96% is raw spent wash and unit bypasses MEE system which is in violation of CPCB direction dated 7.12.2015.
27. The sample collected from CPU feed to equalization tank and CPU outlet shows colour pH-8.71, COD-412 mg/l, BOD-213mg/l, TDS-240 mg/l, TS-276mg/l, Colour-21 Hazen and pH-6.52, COD-12 mg/l, BOD-03mg/l, TDS-388 mg/l, TS-388mg/l, Colour-18 Hazen respectively.
28. The sample collected from aeration tank of CPU has MLSS- 561mg/l and MLVSS-78 % indicates that the MLSS is not up to the required level and aeration tank is not stabilized.
29. Non-operational UASB and unstablized aeration tank of CPU indicates that CPU is not operated regularly/properly. Hence, reduction of 98.5% BOD load indicates possibility of dilution.

**WHEREAS,** CPCB issued direction dated 23.05.2019 under Section 5 of Environment (Protection) Act, 1986, to the unit to comply with following directions:

1. The unit shall remain closed and shall not operate its manufacturing operations for producing rectified spirits, ENA and ethanol.
2. The unit shall operate Multi Effect evaporator (MEE) only , to concentrate the spent wash stored in lagoons having solid content of 17.96 % to achieve 30% solid concentration and the concentrated spent wash shall be used for bio-composting with pressmud by 30<sup>th</sup> June, 2019, complying with the conditions specified in the CPCB direction dated 07.12.2015 under the supervision of Uttarakhand Environment Protection and Pollution Control Board and shall submit documentary evidence. The unit may operate boiler for operation of MEE only.
3. The unit shall immediately discontinue the practice of disposing spent wash within or outside the premises.
4. The unit shall restrict its lagoon capacity upto 30 days of concentrated spent wash i.e. less than 5760 m<sup>3</sup> and only concentrated spent wash with 30 % solid concentration shall be stored in lagoon for use in bio-composting. Excess lagoons capacity shall be dismantled.
5. The unit shall submit the details of spent wash emptied from lagoons 4 (capacity 2744 m<sup>3</sup>) & 5 (capacity 3500 m<sup>3</sup>) such as volume of spent wash used, solid content, press mud used, MEE operation, condensate generated, compost produced etc.
6. The unit shall submit an action plan to remediate Laksar drain for restoration of water quality in a time bound manner.
7. The unit shall commission anaerobic digester and stabilize aeration tank of Condensate Polishing Unit and submit time bound action plan.
8. As per Environmental Compensation Policy framed in compliance of NGT order dated 31.08.2018 in OA no. 593/2017, the Unit shall deposit, within 15 days from the date of receipt of the direction, an Environment compensation amount of Rs.50,70,000/- in favour of CPCB, A/c No. 532702050000164 (Bank name: Union Bank of India, IP Extension Branch, Vikas Marg Extn., Delhi; IFSC: UBIN0553271) or through demand draft in favour of EC by CPCB, towards environmental compensation for violation of CPCB closure direction

9. The unit shall seek permission from CPCB before restart of manufacturing operations after compliance of the above directions.

**AND WHEREAS**, the unit replies vide letters dated 03.06.2019, 29.06.2019, and 16.07.2019, were examined and following observations were made;

1. The Unit claimed that it does not dispose spent wash within or outside its premises and submitted photographs of brick lining being carried out in the area, behind bio-compost yard.
2. The Unit has restricted its lagoon capacity to 30 days equivalent of concentrated spent wash. The unit has dismantled/leveled the excess lagoon capacity of 6244 m<sup>3</sup>.
3. At the time of distillery closure i.e. on 06.03.2019, approx 4000m<sup>3</sup> volume was present in lagoon 4 & 5, which includes approx 1478 m<sup>3</sup> of spent wash and approx 2100m<sup>3</sup> of sludge.
4. The stored spent wash approx. 1478 m<sup>3</sup> has been concentrated in MEE to 552 MT and after concentration it was utilized in bio-composting using 542 MT of press mud.
5. The unit has submitted the details of spent wash consumed from lagoons, solid content, MEE operation details and bio-compost details.
6. The Unit intimated that culture for anaerobic digester of CPU will be prepared before start of distillery operation. Also, stabilization of aeration tank has been completed.
7. The Unit has submitted an action plan to remediate Laksar drain for restoration of water quality.
8. The unit has developed water lettuce and hyacinth in Laksar drain
9. The unit has cleaned the Laksar drain during 1.06.2019 to 15.06.2019.
10. The Unit has deposited Environment Compensation amount of Rs 50,70,000/-
11. The Unit has sought permission to restart manufacturing operations.

**AND WHEREAS**, CPCB vide letter dated 19.07.2019 asked UEPPCB to submit their compliance report as per CPCB directions dated 23.05.2019 on the following measures;

1. Monitoring the process of concentration of the stored spent wash to 30% solid content and its utilization in bio-composting along with supporting documents.
2. Daily monitoring of Laksar drain.
3. Compliance of the unit to CPCB directions dated 23.05.2019.

**AND WHEREAS**, UEPPCB vide letter dated 20.07.2019 & 31.07.2019 forwarded the compliance status of the unit which was examined and following observations made:

1. The unit has closed down its manufacturing operations from 06.03.2019.
2. The unit has operated MEE from 26.06.2019 to 28.06.2019 in-order to concentrate the stored spent wash to 30% solid concentration, under the supervision of UEPPCB officials.
3. The solid concentration of stored spent wash was 18% brix which was concentrated in MEE to achieve solid concentration of 37% brix.
4. The unit has concentrated the entire spent wash (1925 m<sup>3</sup>) through MEE, and it was found that 35% of lagoon volume was occupied with sludge.
5. As per mass flow meter reading at inlet, total spent wash quantity was 21937 kg/hr while at outlet, total spent wash quantity was 8243 kg/hr.

6. The unit has utilized the concentrated spent wash (412.15 MT) in bio-composting after mixing it with 257 MT pressmud.
7. Lagoons inside distillery premises were found empty.
8. OCEMs data and log book data indicating MEE operation have been submitted.

**AND WHEREAS**, CPCB vide letter dated 14.08.2019 asked the unit to submit the supporting documents/photographic evidence of the dismantled/levelled lagoons at the earliest; and

**WHEREAS**, the unit replies vide letters dated 27.08.2019, 29.08.2019 were examined and following observations are made;

1. The unit has informed that the lagoon capacity has been restricted upto 30 days of concentrated spent wash i.e. less than 5760 m<sup>3</sup>.
2. The unit has levelled lagoon no. 4 having capacity of 2744m<sup>3</sup> and converted it to green garden.
3. Lagoon no. 5 having capacity 3500 m<sup>3</sup> has been converted into sugar mill ETP treated water storage tank for ferti irrigation purpose.
4. The unit has restricted the capacity of sump tank from 800 to 510 m<sup>3</sup>.

It is evident from the above observations that the unit has complied with CPCB direction dated 23.05.2019 which has been verified by UEPPCB as the stored spent wash in lagoon has been utilized by the unit in bio-composting after concentration through MEE, deposited the levied Environmental Compensation, restrict the storage lagoon capacity to 30 days of concentrated spent wash, and submit time bound action plan of restoration of water quality of Laksar drain.

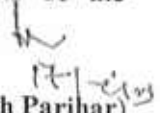
**AND WHEREAS**, the Three Member Committee constituted for examination and recommendations for revocation of closure direction issued by CPCB, examined, UEPPCB compliance report dated 31.07.2019 and unit's letter dated 03.06.2019, 29.06.2019, 16.07.2019 27.08.2019 and 29.08.2019 in its meeting held on 17.09.2019 and recommended the revocation of closure direction.

**NOW THEREFORE**, in view of the above observations and in exercise of the powers delegated to the Chairman, CPCB under section 5 of the Environment (Protection) Act, 1986, the Unit, M/s M/s Rai Bhadur Narain Singh Sugar Mills Ltd. (Distillery Division), Uttarakhand, is directed to comply with the following:

1. The unit may resume manufacturing operations as per consent conditions.
2. The Unit shall continue to comply with ZLD norms as per CPCB direction dated 07.12.2015 issued under Section 18(1) (b) of Water (Prevention & Control of Pollution) Act, 1974.
3. The Unit shall execute the action plan submitted for remediation of Laksar drain.
4. The Unit shall submit performance evaluation report of CPU duly validated by recognised government institute within 60 days from date of receipt of direction.
5. The unit shall restrict its lagoon capacity to 30 days equivalent of concentrated spent wash as per CPCB direction dated 07.12.2015.

6. The unit (M/s Rai Bhadur Narain Singh Sugar Mills Ltd. (Distillery Division)), Uttarakhand shall restrict uses of lagoons within total capacity of 5760 m<sup>3</sup>.

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 without any further notice.

  
(S. P. Singh Parihar)  
CHAIRMAN

Copy to:

1. **The Member Secretary** : With request to ensure compliance of  
Uttarakhand Environment Protection and Pollution direction  
Control Board,  
Gaura Devi Bhawan, 46 BIT Park  
Sahastradhara, Dehradun,  
Uttarakhand-248001
2. **The Joint Secretary (CP Division)** : For kind information, please.  
Ministry of Environment, Forest & C.C  
Prithvi Block, Indira Paryavaran Bhawan,  
Jorbagh Road, New Delhi – 110 003
3. **The Regional Director** : For follow up and ensuring compliance of  
Regional Directorate the direction  
Central Pollution Control Board  
PICUP Bhawan, Ground Floor,  
Vibhuti Khand, Gomti Nagar,  
Lucknow – 226 010.
4. **The District Magistrate,** With request to ensure compliance of  
Haridwar-Uttarakhand direction
5. **The Superintending Engineer,** With request to re-connect the power  
Uttarakhand Power Corporation Ltd., supply for industrial operations  
Old diesel power house  
(opposite saint paul school)  
Kathgodam haldwani, District -Nanital  
Uttarakhand
- ✓ 6. **The In-charge, IT Division, CPCB** To upload the direction
7. **Master file/Guard file WQM-II Division**

  
(Prashant Gargava)  
MEMBER SECRETARY

