NDOH: 10.11.2025

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
Review Application No. 17/2025
In
Original Application No. 530/2023

IN THE MATTER OF:

Anuj Kumar .....APPLICANT

VERSUS

State of Uttarakhand & Ors. ..... RESPONDENTS

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प्रेषक,

जिलाधिकारी
हरिद्वार।

सेवा में,

Shri Dhruv Tamta,
Panel Advocate,
331 M.C. Shetalwad Block,
Supreme Court, New Delhi- 110001
Mo. No.-9899989917

पत्रांकः–234 / एल0बी0ए0 / 2025–26 दिनांकः–06 नवम्बर, 2025

विषयः– मा0 राष्ट्रीय हरित प्राधिकरण में योजित R.A. NO-17/2025 IN O.A/ NO-530/2023 Anuj Kumar Vs. State of Uttarakhand & Ors. के संबंध में।

महोदय,

कृपया उपरोक्त विषयक मा0 राष्ट्रीय हरित प्राधिकरण में योजित R.A. NO-17/2025 IN O.A/ NO-530/2023 Anuj Kumar Vs. State of Uttarakhand & Ors. में पारित आदेश दिनांक 10.09.2025 का संदर्भ ग्रहण करने का कष्ट करें। प्रश्नगत प्रकरण में अधोहस्ताक्षरी प्रतिवादी संख्या–6 है। प्रकरण में वस्तुस्थिति हेतु उप जिलाधिकारी, लक्सर की अध्यक्षता में संयुक्त समिति का गठन किया गया था। संयुक्त समिति द्वारा विषयगत स्थल का दिनांक 25.10.2025 को निरीक्षण किया गया।

अतः मा0 एन0जी0टी0 द्वारा पारित आदेश दिनांक 10.09.2025 के अनुपालन में संयुक्त समिति की निरीक्षण आख्या संलग्नकों सहित इस अनुरोध के साथ प्रेषित है कि कृपया निरीक्षण आख्या को प्रतिवादी संख्या–6 की ओर से मा0 एन0जी0टी0 में दाखिल करने का कष्ट करें एवं प्रतिवादी संख्या–6 की ओर से मा0 एन0जी0टी0 में उपस्थित होने का कष्ट करें।

संलग्नक–यथोपरि।

भवदीय,

(मयूर दीक्षित)
जिलाधिकारी,
हरिद्वार।

प्रतिलिपिः–निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

1– सदस्य सचिव मुख्यालय उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड गौरा देवी पर्यावरण भवन 46 बी, आई0टी0 पार्क सहस्त्रधारा रोड देहरादून।

2– अपर सचिव, पर्या0 संरक्षण एवं जलवायु परिवर्तन अनु0 उत्तराखण्ड शासन, देहरादून।

जिलाधिकारी,
हरिद्वार।

मा0 एन0जी0टी0 द्वारा योजित Review Application No- 17/2025 in OA No. 530/2023 अनुज कुमार बनाम उत्तराखण्ड राज्य एवं अन्य में मा0 एन0जी0टी0 द्वारा पारित आदेश दिनांक 10.09.2025 के अनुपालन में संयुक्त कमेटी की निरीक्षण आख्या।

1. मा0 एन0जी0टी0 द्वारा मूल आवेदन सं0– 530/2023 अनुज कुमार बनाम उत्राखण्ड राज्य, मूल आवेदन सं0– 495/2023 मो0 अमजद बनाम उत्तर प्रदेश राज्य तथा मूल आवेदन सं0– 369/2024 मोनिका (सरपंच) बनाम उत्तराखण्ड राज्य में दिनांक 20.05.2025 द्वारा समस्त मूल आवेदनों को निस्तारित करते हुए निम्नलिखित निर्देश निर्गत किये गये है:–

"……

15. Hence, we dispose of the O.A by directing the CPCB and UKPCB to carry out the joint inspection of the area and asserting the correctness of the allegation about the burning of spent wash powder by the respondents no. 7 and 8. and also, examine the issue of installation of the incinerator boiler to protect the groundwater from pollution and its feasibility and requirement and if the allegation is found to be correct, take appropriate remedial and punitive action and submit the action taken report through email to Registrar General of this Tribunal within two months. If it is found to be necessary, the matter will be listed for consideration before the Bench."

……"

2. मा0 एन0जी0टी0 द्वारा पारित उपरोक्त आदेशों के आलोक में श्री अनुज कुमार द्वारा Review Application No- 17/2025 दाखिल की गयी, जिसमें मुख्यतः निम्नलिखित बिन्दुओं को सम्मिलित किया गया है:–

"……

2. The Applicant has mainly seeking three relief in OA 530/23 that: -

I. Hon'ble Tribunal may be pleased to direct the respondent no 7 to install incineration Boiler immediately to protect ground water.

II. That the Hon'ble Tribunal may be pleased to direct respondent no 7 to develop concreate Nala from industry premises to Hadwa drain.

III. That Hon'ble Tribunal may be pleased to direct to respondent no 7 to develop green area acre area.

……"

3. मा0 एन0जी0टी0 द्वारा Review Application No- 17/2025 in OA No. 530/2023 अनुज कुमार बनाम उत्तराखण्ड राज्य एवं अन्य में दिनांक 10.09.2025 को निम्नलिखित् निर्देश पारित किये गये:–

i. Issue Notice on this review application to the Respondents.
ii. Application is directed to serve the Respondents and file affidavit of service atleast one week before the next date of hearing.
iii. List on 10.11.2025

4. मा0 एन0जी0टी0 द्वारा पारित आदेश दिनांक 10.09.2025 के अनुपालन में अपर जिलाधिकारी, हरिद्वार द्वारा निम्नानुसार संयुक्त कमेटी का गठन किया गया:–

   i. उप जिलाधिकारी, लक्सर।
   ii. क्षेत्रीय अधिकारी, उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड, रूड़की।
   iii. अधिशासी अधिकारी, नगर पालिका परिषद, लक्सर।

5. संयुक्त कमेटी द्वारा विषयगत प्रकरण में मै0 आर0बी0एन0एस0 शुगर मिल्स लि0, (डिस्टलरी यूनिट), लक्सर, जिला–हरिद्वार का दिनांक 25.10.2025 को निरीक्षण किया गया। निरीक्षण के समय उद्योग प्रतिनिधि श्री एस0पी0 सिंह, महाप्रबंधक एवं श्री पंकज कुमार उप महाप्रबंधक उपस्थित थे। बिन्दुवार निरीक्षण आख्या निम्नवत् है:–

I. Hon'ble Tribunal may be pleased to direct the respondent no 7 to install incineration Boiler immediately to protect ground water.

   i. मै0 आर0बी0एन0एस0 शुगर मिल्स लि0, (डिस्टलरी यूनिट), लक्सर, जिला–हरिद्वार को उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड द्वारा Ethanol/ENA/RS- 60 KLD & Ethanol- 60 KLD क्षमता हेतु Consolidated Consent & Authorization (CCA) निर्गत है, जिसकी वैधता अवधि दिनांक 31.03.2028 तक है। **(संलग्नक–01)**।

   ii. उद्योग में कच्चे माल के रूप में C-Heavy/B-Heavy Molasses- 372 M^3/day का प्रयोग अनुमन्य है। उत्पादन प्रक्रिया में मुख्यतः Fermentation, Distillation & Molecular Sieve Dehydration प्रक्रियाऐं सम्मिलित हैं।

   iii. उत्पादन प्रक्रिया से जनित Spent Wash (720M^3/day) के शुद्धिकरण एवं निस्तारण हेतु उद्योग द्वारा Bio-digesters for Bio-methanation - 03 Nos. (10,000x2 Nos., 7,500x1Nos. capacity) की स्थापना की गयी है, जिसके उपरान्त Spent Wash को Multi Effect Evaporator (MEE)- 02 Nos. 750 M^3/day capacity) के माध्यम से Concentrate कर Spray Dryers (02 Nos.x45 TPD Capacity के माध्यम से Powder में परिवर्तित किया जाता है। Powder को Fly ash के साथ Mix कर Granulation प्रक्रिया द्वारा Fertilizer (Potash Rich Manure) का उत्पादन किया जाता है। Bio Methainated Spent wash के भण्डारण हेतु 1925M^3 क्षमता का Lagoon स्थापित है।

   iv. MEE Condensate, Spent Lees & Cooling Tower Blow- down आदि से जनित उत्प्रवाह के शुद्धिकरण हेतु 1050 KLD क्षमता का Condensate Polishing Unit (CPU) की स्थापना की गयी है। CPU में Equalization Tank, UASB, Anaerobic digestion, Aeration Tank, Clarifier Tank, Alum Contact Tank, Flocculation Tank, Lamella Settler Tank, Chlorine Contact Tank, Multi Grade Filter & Activated Carbon Filter की स्थापना की गयी है। CPU से जनित शुद्धिकृत उत्प्रवाह को शत्–प्रतिशत् Molasses dilution, Cooling Tower makeup water आदि में प्रयुक्त किया जाता है।

उद्योग द्वारा Zero Liquid Discharge का अनुपालन किया जा रहा है। उद्योग द्वारा Bio-composting प्रक्रिया को पूर्णतः बंद कर दिया गया है।

v. उद्योग को Molasses based Distillery from 60 KLPD to 120 KLPD क्षमता हेतु पर्यावरणीय स्वीकृति प्राप्त है। पर्यावरणीय स्वीकृति में Spent wash के निस्तारण हेतु Bio-digester (Bio-methaination) Multi Effect Evaporator तथा Concentrated Spent Wash के निस्तारण हेतु Spray Dryer की अनुमति प्राप्त है। **(संलग्नक–02)।**

vi. मा0 एन0जी0टी0 द्वारा विषयगत प्रकरण में दिनांक 20.05.2025 को पारित आदेशों के अनुपालन में केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं राज्य प्रदूषण नियंत्रण बोर्ड की संयुक्त कमेटी द्वारा दिनांक 20.06.2025 को उद्योग का निरीक्षण किया गया। संयुक्त कमेटी की निरीक्षण आख्या मा0 एन0जी0टी0 में दाखिल की गयी है। निरीक्षण आख्या के बिन्दु सं0–2.3 (xiv) में Spent wash निस्तारण व्यवस्था एवं अनुपालन स्थिति स्पष्ट की गयी है एवं उल्लेखित् है कि उद्योग को Incineration Boiler की आवश्यकता नहीं है। **(संलग्नक–03)।**

vii. उद्योग द्वारा उपलब्ध आंकड़ों के अनुसार नवम्बर, 2024 से जुलाई, 2025 तक उद्योग द्वारा 15233426 BL Alcohol का उत्पादन किया गया, जिससे 92,004.187 MT Spent wash जनित हुआ। उक्त Spent wash को Bio-methanaition, MEE & Spray Dryer के माध्यम से निस्तारित कर 10534.360 MT Powder का उत्पादन किया गया। जनित Powder की 3016.910 MT मात्रा को Fertilizer Granules बनाने में प्रयुक्त किया गया तथा 7578.786 MT को सीधे खाद के रूप में प्रयुक्त हेतु विक्रय किया गया। **(संलग्नक–04)।**

viii. National Sugar Institute (NSI), Kanpur द्वारा जनवरी, 2025 में उद्योग के उत्प्रवाह शुद्धिकरण संयंत्र (ई0टी0पी0) का मूल्यांकन किया गया, जिसमें उद्योग द्वारा स्थापित व्यवस्थाऐं Zero Liquid Discharge हेतु उपयुक्त पायी गयी। NSI, Kanpur द्वारा प्रेषित् Adequacy report की छायाप्रति संलग्न है। **(संलग्नक–05)।**

II. That the Hon'ble Tribunal may be pleased to direct respondent no 7 to develop concreate Nala from industry premises to Hadwa drain.

i. उद्योग परिसर से लगे लक्सर ड्रेन को हड़वा नाला तक पक्का नाला किये जाने के सम्बन्ध में उद्योग प्रतिनिधि द्वारा अवगत कराया गया कि लक्सर ड्रेन को पक्का किये जाने के सम्बन्ध में नगर पालिका परिषद, लक्सर से आवश्यक अनुमति चाही गयी थी। अधिशासी अधिकारी, नगर पालिका परिषद, लक्सर द्वारा अवगत कराया गया कि लक्सर बाड़ ग्रस्त क्षेत्र होने के कारण बाढ़/बरसाती पानी की निकासी लक्सर ड्रेन से होती है। ऐसी दशा में लक्सर नाले के अन्दर हयूम पाईप अथवा इसे कवर्ड किया जाना नगर हित में उचित प्रतीत नहीं होता है। **(संलग्नक–06)।**

ii. उद्योग द्वारा उद्योग परिसर से लगे लक्सर ड्रेन के अधिकांश क्षेत्र को पक्का किया गया है। शेष लगभग 100 मी0 का क्षेत्र में लक्सर ड्रेन को पक्का किया जाना है। उक्त हेतु उद्योग

प्रबंधक को इस आशय का निर्देश निर्गत किया जाना उचित होगा कि तीन माह के अन्तर्गत अवशेष भाग में पक्के नाले का निर्माण किया जाये।

III. That Hon'ble Tribunal may be pleased to direct to respondent no 7 to develop green area acre area.

मै0 आर0बी0एन0एस0 शुगर मिल्स लि0, डिस्टलरी यूनिट एवं शुगर मिल, संयुक्त रूप 50 एकड़ भूमि में स्थापित हैं, जिसमें से 8 है0 भूमि कृषि कार्यो में प्रयुक्त की जाती है। उद्योग द्वारा लगभग 15 है0 भूमि हरित पट्टिका विकसित किये जाने हेतु आरक्षित है। उद्योग परिसर की हरित पट्टिका के रूप में वृक्षारोपण तथा पेड़–पौधे विकसित किये गये हैं।

उपरोक्तानुसार निरीक्षण आख्या प्रेषित् है।

अधिशासी अधिकारी, नगर पालिका परिषद, लक्सर।

क्षेत्रीय अधिकारी,
उत्तराखण्ड प्रदूषण नियंत्रण बोर्ड,
रूड़की।

उप जिलाधिकारी,
लक्सर।

उप जिलाधिकारी
लक्सर

HEAD OFFICE
Uttarakhand Pollution Control Board
"Gauradevi Paryavaran Bhawan"
46B, IT Park, Sahastradhara Road, Dehradun
E-mail : msukpcb@yahoo.com, Phone No.-0135-2607092

Letter No.: UKPCB/HO/Con-R-95/2024/ 823

Date: 27/08.2024
REGD. POST

To,

M/S Rai Bahadur Narayan Singh Sugar Mills Ltd.,
(Distillery Unit)
Laksar, Distt. Haridwar
(Uttarakhand)

Subject: **Consolidated Consent to Operate and Authorisation hereinafter referred to as the CCA (Consolidated Consent & Authorization) Renewal under Section- 25 of the "Water (Prevention & Control of Pollution) Act., 1974"and under Section- 21 of the "Air (Prevention & Control of Pollution) Act, 1981"and Authorization under "Rule - 6(2)"of the "Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016"notified under "Environment (Protection) Act, 1986"as applicable (to be referred hereinafter as Water Act, Air Act and HW Rules respectively).**

CAF ID: 9158	**Application No.** 5445375
CCA (Renewal)	**Date:-** 01.03.2024

Consolidated Consent and Authorization (CCA):

CCA is hereby granted to **M/S Rai Bahadur Narayan Singh Sugar Mills Ltd. (Distillery Unit)** located at Laksar, Distt. Haridwar (Uttarakhand) subject to the provisions of the **Water (Prevention and Control of Pollution) Act, 1974;** the **Air (Prevention and Control of Pollution) Act, 1981** and the **Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016** and the orders that may be made further and subject to following terms and conditions:

1. This CCA is granted for the period up to 31.03.2028, under Section-25 of the Water (Prevention & Control of Pollution) Act, 1974, as amended.
2. This CCA is granted for the period up to 31.03.2028, under Section-21 of the Air (Prevention & Control of Pollution) Act, 1981, as amended.
3. This CCA is granted for the period of 31.03.2028, under the Hazardous and Other Waste (Management & transboundary Movement) Rules, 2016 as amended.
4. **Production Capacity:**

S. No.	Declared by the industry		Permitted by Board	
	Raw Material/ Feedstock	Finished Product (KLD)	Raw Material/ Feedstock (M^3/Day)	Finished Product (KLD)
1.	C-Heavy/ B-Heavy Molasses- 372 M^3/Day	Ethanol/ENA/RS-60 KLD & Etanol-60 KLD	C-Heavy/ B-Heavy Molasses- 372 M^3/Day	Ethanol/ENA/RS-60 KLD & Etanol-60 KLD

5. **Production Process Infrastructure:**

S.no.	Declared by the unit				Permitted by the Board
	Number of fermenters	Capacity of fermenters (M^3	Type of fermentation technology adopted	Type of Distillation	
1.	07	400 M^3 each	Feed Batch	Molasses based	As declared by Unit.

Molasses storage infrastructures:

Declared by the unit			Permitted by SPCB
Capacity	No. of tanks	No. of lined pits*	
60000 Qtl. & 85000 Qtl.	02 Nos.	NA	60000 Qtl. & 85000 Qtl. (02 Nos.)

*The unit shall not store molasses in *Kacchal* unlined pits.

6. Water Conservation:

A. Fresh water Consumption

i. The unit shall obtain permission / NOC from State or Central Ground Water Authority for Groundwater abstraction and shall comply with the conditions mentioned in the NOC.

ii. Industry shall install separate sealed, calibrated Electro Magnetic Flow meters with flow totalizer at all water abstraction sources, utilization lines- process, domestic and boiler.

iii. The industry shall maintain duly signed logbook of fresh water consumption and utilization.

iv. The specific water consumption shall not exceed values mentioned below as per consented product type.

Category	Specific Water Consumption not to exceed
B-heavy / C-Heavy	8-10KL/KL of product
Cane syrup/ sugar cane juice	6-8KL/KL of product

	Declared by the Industry	Permitted by NOC issued by CGWA	CGWA conditions
No. of bore wells	01	01	To be complied.
Daily quantity of water to be abstracted (KLD)	250 KLD	500 KLD	

B. Effluent generation, treatment and disposal:

i. The quantity of maximum specific effluent generation shall be as specified below:

Category	Specific spent wash generation5, not to exceed
B-heavy / C-Heavy	6-8KL/KL of product
Cane syrup/ sugar cane juice	4-6KL/KL of product

ii. The quantity of maximum daily effluent generation & discharge should not be more than the following:

S.No.	Kind of Effluent	Maximum daily generation	Maximum daily discharge, (KLD)	Treatment Facility and Discharge point
1	Domestic	15 KLD		Septic Tank & Soak Pits.
2	Industrial (Spent wash)	720 M^3/Day	Zero Liquid Discharge (ZLD)	

iii. Arrangement should be made for collection of water used in process and domestic effluent separately in closed water supply system. It should be ensured that domestic effluent should not be discharged in the storm water drain.

iv. The domestic effluent should be treated in sewage treatment plant (STP) and it should be in conformity with the norms of treated effluent as stipulated in E.P. Rules, 1986 as amended.

v. The unit shall identify recipient drains/ rivulets and their u/s & d/s locations in consultation with SPCB for monthly monitoring by industry to ensure ZLD from distilleries within 30 days. The monitoring report shall be submitted to CPCB on monthly basis.

S.No.	Name of recipient drain/rivulets	Latitude	Longitude	Name of the recipient river
1.	u/s of Laksar drain	$28^0 44' 59''$N	$78^0 01' 40''$E	Banganga
2.	d/s of Laksar drain	$29^0 44' 36''$N	$78^0 01' 53''$E	Banganga

vi. The industry shall maintain Zero Liquid Discharge (ZLD). ZLD refers to installation of facilities and system which will enable industrial effluent (all streams) for absolute recycling of or re-use in to industrial processes and converting solute (dissolved organic and in-organic compounds / salts) into residue in solid form by adopting method such as concentration/ evaporation/drying. ZLD will be recognized and certified based on two broad parameters that is, water consumption versus waste water reused or recycled (permeate) and correspondingly solids recovered (percent total dissolved / suspended solids in effluents).

C. Effluent Management Infrastructure:

Bio-digester				
S.no.	**No. of digesters**	**Designed Capacity (m3)**	**Sludge generation from digester**	**Method of disposal/ utilization of sludge**
1.	03	10000 x 02 nos. 7500 x 01 nos.	--	Spray Dryers

Multi Effect Evaporator (MEE)				
S.No.	**Nos. of MEE**	**Design Capacity (m3)**	**Type of technology of MEE (stages)**	**Mass flow meter installed at inlet and outlet of MEE**
1.	02 Nos.	5028 Sq. Meter	Multi-Effect Evaporation	Yes.

Condensate Polishing Unit (CPU): **For treatment of MEE condensate and other low-strength effluent					
S.No.	**Design Capacity (m3)**	**Type of technology of CPU**	**Sources of effluent coming into CPU with Quantity**	**Quantity of treated effluent from CPU and its utilization**	**Quantity of CPU sludge & its disposal mechanism**
1.	1050	USAB	Condensate of MEE	485 KLD Reused in cooling and processes.	Sludge Drying Bed. To be used as manure.

Reverse Osmosis (RO) system				
S.No.	**Design Capacity (m3)**	**No. of stages**	**Quantity of RO permeate (m3) & purpose of utilization**	**Quantity of RO reject (m3) & disposal mechanism**

i. All process and non-process effluents such as Spent lees, Process condensates, Boiler RO reject, CT blowdown, Softener/DM plant backwash, Pump gland cooling water etc. should be treated through CPU and recycled back in the process.

ii. The unit shall install mass flowmeters with totalizers at inlet and outlet of Multi Effect Evaporator (MEE) (concentrate) and shall connect the same with CPCB and Uttarakhand Pollution Control Board's servers.

iii. The unit shall install electromagnetic flowmeters with totalizer at CPU inlet & outlet and at water recirculation points like make up water for cooling towers & in process. The unit shall have separate energy meter for ETP/CPU and maintain the duly signed logbook of the same.

iv. The unit shall maintain duly signed logbooks of spent wash generation, MEE feed, MEE condensate, MEE concentrate, CPU inlet & outlet, cooling tower make up water and treated effluent reused in process.

v. The unit shall ensure proper marking/and colour coding of all the pipelines carrying industrial effluent accordingly.

O/C

Distilleries opting for Spray Dryer;

i. Minimum Solid % in feed for dryer shall be 40-45%.

ii. Maximum storage of Bio-methanated spent wash utilized in dryer shall strictly be restricted to seven days (07) equivalent of concentrated Bio-methanated spent wash generated. Excess storage facilities beyond this shall be levelled and dismantled.

iii. Unit shall dispose the spent wash through Bio-methanation followed by MEE and concentrated spent wash will be dried through Spray Dryers- 02 Nos. and the powder will be used as Potash Rich manure (45 TPD each Dryer).

iv. The unit shall collect powder produced from dryer in common silo and should be disposed of as fertilizer.

D. Domestic sewage

i. The domestic effluent should be treated separately in sewage treatment plant/ soak pit so that it should be in conformity with the following norms.
Trade effluent and domestic sewage shall be treated separately and also to be monitored for compliance w.r.t. notified norms separately. However, Single outlet can be provided after mixing for outside disposal.

ii. Industry shall install the flow meter at STP inlet and outlet and maintain the daily logbook.

iii. Industry shall explore the possibility to recycle the treated used water shall be utilised in gardening, irrigation, industrial utility and toilet flushing to minimise the fresh water consumption up to 20 % per year.

7. Air pollution mitigation:

i. The industry shall use following fuel and install air pollution control devices (APCD) of adequate capacity to comply with the following;

S. No.	Equipment	Fuel used	Stack height (m)	Air Pollution Control Device (APCD)	Stack Emission standards
I.	Spray Dryer (45 TPD)	Bagasse-168 TPD	40	Individual Wet Scrubber	PM-150 mg/N M^3
II.	Spray Dryer (45 TPD)	Biogas-1500 M^3/day			

ii. The industry shall operate in a manner so that all emissions be emitted through designated chimney/stack only. Porthole, platform and stairs shall be provided as per prescribed guidelines for stack emission monitoring.

iii. The APCS will be maintained and operated in such a manner that emissions always conform to the standard laid down under the E.P Act 1986 as amended. The ash generated from the Boiler shall be disposed of properly in such a manner that not affect the environment adversely.

iv. The unit shall install Online Stack Emission Monitoring System (OEMS) for PM and ensure with its connectivity (24x7) to CPCB server and Uttarakhand Pollution Control Board's dashboard.

v. The unit shall submit manual stack emission monitoring report and ambient air quality report on quarterly basis during operation of the plant.

vi. Water shall be sprinkled on the roads and premises for suppression of road dust.

vii. The solid waste namely boiler ash shall be disposed of properly and ensure that there is no fugitive emission from their transportation, storage and handling.

viii. The industry shall provide ports in the chimney/stack and facilities such as ladder, platform etc. as per requirement for monitoring the air emissions and the same shall be open for inspection and use at all time) by the Board's staff, the chimney/stack attached to various sources of emission shall be designated by number such as S-1, S-2 etc. and these shall be painted/ displayed to facilitate identification.

8. Noise Pollution Mitigation:

i. Noise from the D.G. Set and other source(s) should be controlled by providing an acoustic enclosure as is required for meeting the ambient noise standards for night and day time as prescribed for respective areas/zones (Industrial and Commercial) which are as follows: -

Standards for Noise level in db.(A) L_{eq}			
Industrial Area		Commercial Area	
Day	Night	Day	Night
75	70	65	55

Day time: from 6.00 a.m. to 10.00 p.m., **Night time:** from 10.00 p.m. to 6.00 a.m.

ii. The industry shall take adequate measures to control of noise from its own source so as to comply with the standards as may be applicable.

iii. The industry shall provide acoustics enclosure on DG sets as per Environment (Protection) Rules, 1986.

9. **Conditions under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016: -**

Hazardous Waste Management:

i. Number of authorization and date of issue: As above.

ii. Reference of application (No. and date) : As above.

iii. The **Factory Manager** of **M/S Rai Bahadur Narayan Singh Sugar Mills Ltd.** is hereby granted an authorization for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated at Laksar, District Haridwar (Uttarakhand).

Details of Authorization

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity (ton/annum)
--NA--			

iv. The authorization shall be valid for a period of .....NA.....

v. The authorization is subject to the following general and specific conditions (Please specify any conditions that need to be imposed over and above general conditions, if any):

A. General conditions of authorization:

1. The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site-specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
7. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.

9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12. An application for the renewal of an authorization shall be made as laid down under these Rules.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.
15. The occupier shall strictly comply with condition of prior environmental clearance accorded by MoEF & CC vide letter File no. IA-J-110011/618/2010-IA II(I) dated 27-08-2021 and shall submit regular compliance of the same.
16. The occupier shall submit water Balance & material Balance within one month of start of operation and same shall be communicated in each season to the Board's offices.
17. The occupier shall strictly comply with provisions of Water Act, Air Act, E(P) Act & Rues mad thereunder and directions issued from time to time.

General Conditions

1. Environmental management system:
   i. Industry shall setup the environmental management cell including unit head, purchase/store manager, process operation head, ETP in charge to effectively monitoring of environmental compliance
   ii. Industry shall setup the environmental laboratory for testing of minimum wastewater quality parameters like pH, TSS, BOD, COD, MLSS and DO to effectively monitoring of ETP control parameters and ETP discharge norms.
2. The applicant shall get analyses the samples of effluent/emission/hazardous wastes at least once in a three month from the laboratory recognized by the MoEF&CC and shall report to the SPCB.
3. The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gases emission or sewage waste from the unit.
4. Treated waste water and domestic waste water shall be disposed jointly at one disposal point. The applicant shall provide discharge measurement equipment at final disposal point.
5. The applicant shall strictly comply with conditions of this CCA and submit compliance report of stipulated conditions with 30 days of receipt of this CCA. If, at any point of time, it is found that the industry is not complying with stipulated conditions or any further direction/instruction issued by the **Board**, legal action shall be initiated against the applicant.
6. The applicant shall maintain good housekeeping. All valves/pipes/sewer/drains etc. must be leak-proof.
7. The industry shall provide uninterrupted entry to this STP's/ETP's inlet and outlet points, Air Pollution Control equipment and stack for smooth sampling/monitoring of efficiency of pollution control measures.
8. The industry shall provide "Inspection Book" at the time of inspection to the Board's officials. Whenever due to any accident or other unforeseen act or event, such emission occurs or is apprehended to occur in excess of standards laid down, such information shall be reported to the Board's offices and all other concerned offices. In case of failure of pollution control equipment, the production process connected to it shall be stopped with immediate effect
9. In case of any damage to the agriculture productivity, human habitation etc. by the operation of industry, it shall be imperative to stop production in the industry with immediate effect and such information shall be reported to Board's offices. The industry shall be liable to pay compensation also in such cases as decided by the Competent Authority.
10. The applicant shall apply before the 60 days of expiry of CCA or any change in production types/production capacity/manufacturing process/capacity enhancement etc. or any change in effluent discharge point or emission point.
11. The **Board** reserves the right to revoke/add/modify any stipulated conditions issued along with CCA, as may be necessary.

12. Any unauthorized change in personnel, equipment as working condition as mentioned in the application by the person authorized shall constitute a breach of his authorization.
13. It is the duty of the authorized person to take prior permission of the **Board** to close down the facility.
14. The authorization is valid for temporary storage of Hazardous Waste within premises only.
15. It is duty of the authorized person to take prior permission of this Board to close and clean up the facility for treatment, storage and disposal of hazardous waste.
16. Industry shall submit the latest copy of Audit Balance sheet/C.A. Certificate (Fixed Assets + Current Assets-Current Liabilities) so that the Consent fee payable by the industry may be verified.
17. Generated hazardous waste shall be stored temporarily in the factory premises and disposed of through authorized TSDF after obtaining the authorization from the Board
18. Unit shall develop green belt as per the protocol of Central Pollution Control Board.
19. In case of non-compliance of CCA condition(s) Bank Guarantee No.00608IG160000010 submitted by the unit will be forfeited without further information.
20. The industry shall comply with the provisions of Environment (Protection) Amendment, Rules 2018 notified by MoEF&CC by Notification no 49 Dt. 25.01.2018, Environment (Protection) Act 1986, Water (Prevention and Control of Pollution) Act, 1974 as amended, Air (Prevention and Control of Pollution) Act, 1981 as amended, Plastic Waste Management Rule 2016, E-Waste (Management and Transboundary Movement) Rules 2016 (whichever is applicable).
21. If closure order is issued by CPCB or SPCB against the unit then CCA will remain suspended during the closure period. After ensuring the compliance and after revocation of the closure order, the CCA will automatically be effective from the date of issuance of the closure revocation/modification order with additional conditions mentioned in the closure revocation/modification order.

Dr. Parag Madhukar Dhakate
Member Secretary

Copy to:

Regional Officer, Uttarakhand Pollution Control Board, Regional Office, Roorkee (Haridwar) for information and compliance.

Member Secretary

File No. IA- J-11011/618/2010-IA II(I)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division
***

Indira Paryavaran Bhawan,
Jal Wing, 3rd Floor, Aliganj,
Jor Bagh Road, New Delhi-110 003

Dated:27th August,2021

To,

Shri. Satya pal singh,
Additional General Manager,
M/s. Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division),
Laksar village, Laksar tehsil,
Haridwar- 247663.

Sub: Expansion of Molasses Based Distillery from 60 KLPD to 120 KLPD by installation of new 60 KLPD Ethanol Plant at Village Laksar, Tehsil Laksar, District Haridwar, Uttarakhand by M/s. Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division)- Consideration of Environment Clearance.

Sir,

This has reference to your online proposal No. IA/UK/IND2/218585/2021, dated 14th July, 2021 for environmental clearance to the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the proposed project expansion of Molasses Based Distillery from 60 KLPD to 120 KLPD by installation of new 60 KLPD Ethanol Plant at Village Laksar, Tehsil Laksar, District Haridwar, Uttarakhand by M/s. Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division).

3. The project/activities are covered under category A of item 5 (g) 'Distilleries' of the Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC). The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide Notification no. S.O. 345(E) dated 17th January 2019 & extension of notification S.O. 750(E) dated 17th February 2020, S.O 980(E) dated 2nd March, 2021. Accordingly, the proposal is appraised as category 'B2' project at Central Level by Expert Appraisal Committee (EAC).

4. Ministry had issued EC earlier vide letter no. J-11011/78/2005-IA-II (I) dated 24th May, 2006 to the existing operational project in favor of M/s Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division). It was informed that no litigation is pending against the proposal.

5. The details of products and capacity are as under: -

S. No.	Unit	Existing	Proposed Additional	Total after expansion	Remarks
1.	Distillery	60 KLPD (Ethanol /ENA/ RS)	New 60 KLPD Ethanol Plant	120 KLPD	Additional increased 60 KLPD capacity will be Ethanol only

6. Existing land area is 14.5 hectares (145000 m^2). The proposed expansion will be done within the existing plant premises so no additional land is required. Industry has already developed greenbelt in an area of 35% i.e. 5.0 ha (50000 m^2) out of total area of the project. The estimated project cost is Rs. 33.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 15.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.5 Crore per annum. Total Employment will be 56 persons as Permanent & 7 persons as temporary during operation phase after expansion. Industry proposes to allocate Rs. 66 Lakhs @2 % of total project cost towards Social developmental activities.

7. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc., within 10 km distance from the plant site. There is 1 Reserved Forest (RF) within 10 km radius namely Pathri Reserve Forest (3.0 km in NE direction). River i.e. Harwaha Nadi (1.0 km in West direction), Pathari Rao (1.5 km in NE direction), Pir Khala (2.5 km in NNE direction), Begam Nadi (4.0 km in ESE direction), Bodi Nadi (5.0 km in WSW direction), Solani River (5.0 km in West direction), Banganga River (5.5 km in SE direction), Pathawa Nadi (5.5 km in North direction) are flowing within 10 km radius.

8. Total fresh water requirement after expansion will be 474 KLPD which will be met from Groundwater and condensate water of their own Sugar Mill. Effluent of 886 KLPD quantity after expansion will be treated through state of art CPU (1050 KLPD Capacity) Treatment Plant (Anaerobic- UASB Reactor, Extended Aeration ASP, Clarifiers, Filters, & Chlorine chamber). The plant will be based on Zero Liquid discharge system.

9. Power requirement for distillery after expansion will be 3.0 MW including existing 1.5 MW and will be met from 30 MW Co-generation Power Plant in adjacent own Sugar Mill & D.G. Sets (for emergency). Sugar Mill Plant has one DG set of capacity 1010 KVA which is used as standby during power failure. Adequate Stack height (6 m) has been provided as per CPCB norms to the existing DG set. No additional DG set is proposed. Existing 70 & 90 TPH Bagasse & Biogas fired boilers are present in own adjacent Sugar Mill. A 30 TPH boiler is kept as standby in Sugar Mill campus for emergency operations which will be used as and when required for distillery operations. No additional boiler will be installed. Wet Scrubber with a stack height of 60 m is already installed in existing 70 & 90 TPH boilers for controlling the particulate emissions within the statutory limit.

10. Details of Process emissions generation and its management:

- Wet Scrubber with stack of adequate height (60 m) is already installed with the boilers to control the particulate and gaseous emissions as per CPCB guidelines. No new boiler is proposed.
- CO2 generated during the fermentation process sold to vendors.

- Online Continuous Emission Monitoring System has been installed with the existing stack and data transmitted to CPCB/SPCB servers.

11. Details of Solid waste/Hazardous waste generation and its management:

- Presently, Spent Wash generated during the process, is being first treated in Bio-Digester (Bio- Methanation) followed by Multi-effect evaporator and then used for Bio-composting. Bio-compost generated (9922 TPA) is sold to farmers.
- In proposed new Ethanol Plant, spent wash generated in the new Ethanol Plant will be treated in bio-digestor (bio-methanation) followed by Multi Effect Evaporator and concentrated spent wash will be dried in Spray Dryer and the powder will be used as potash rich manure (45 TPD).
- ETP Sludge is being/will be dried and given to farmers to be used as organic manure.
- Used oil (1 MT/Year) generated from the plant machinery/ gear boxes as hazardous waste is being/will be sold out to the CPCB authorized recycler.

12. Certified EC compliance Report has been obtained by Regional Office, MoEFCC, Dehradun vide F. No: NC-RO/UTR/IND-3/31/2006/2251 dated 08th February, 2021 wherein one non-compliance and two partial compliances were observed. PP has submitted ATR to IRO Dehradun.

13. As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 60 KLPD will be for manufacturing of fuel ethanol only.

14. After detailed deliberations, EAC desired PP to submit ash disposal plan. PP submitted that there is no boiler in the distillery unit. The distillery unit is interlinked with adjacent own sugar mill and the requirement of power and steam is fulfilled from the sugar mill. The adjacent sugar mill has 3 boilers viz., 90 TPH, 70 TPH& 30 TPH (Standby) which are bagasse and biogas based. The ash generated from the sugar mill is being and will be given to the nearby brick manufacturing units. Ash disposal is being and will be done as per the guidelines of CPCB and SPCB.

15. The proposal was considered by the EAC in its 38th meeting held during 28th -29th July, 2021 in the Ministry, wherein the project proponent and their consultant M/s. J.M. EnviroNet Pvt. Ltd presented the EMP report as per the PFR. The Committee found the EMP report complying with the PFR and recommended the project for grant of environmental clearance.

16. The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

17. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of environmental clearance.

18. The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

19. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate Change hereby accords environmental clearance for to the proposed project expansion of Molasses Based Distillery from 60 KLPD to 120 KLPD by installation of new 60 KLPD Ethanol Plant at Village Laksar, Tehsil Laksar, District Haridwar, Uttarakhand by M/s. Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division), under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under: -

A. <u>Specific Conditions:</u>

(i) As per OM dated 16th June, 2021, project falls in category B2 and the proposed additional capacity of 60 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(ii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iii) The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.

(iv) Total fresh water requirement after expansion will be 474 KLD which will be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Rainwater shall be collected in storage ponds and utilized for plant activities. Ground water monitoring

shall be done regularly and report is to be submitted to concerned authorities regularly.

(v) The spent wash generated shall be treated by bio-methanation followed by Multi Effect Evaporator and concentrated spent wash will be dried in Spray Dryer.

(vi) CO2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vii) Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(viii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.

(x) Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xi) The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xii) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time as proposed.

(xiv) There shall be at least 20% parking space out of total area of plant site which shall be earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xv) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xvi) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xvii) A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

B. General Conditions:

(i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

(ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iii) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

(vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

(viii) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

(ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

(x) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

(xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

20. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

21. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

22. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

23. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

24. This issues with the approval of the competent authority.

27.08.2024

(Ashok Kumar Pateshwary)
Director

Copy to: -

1. Principal Chief Conservator of Forest & HoFF, 85, Rajpur Road, Dehradun, Uttarakhand, India.
2. Deputy Director General of Forests (C), Ministry of Env., Forest and Climate Change, Integrated Regional Office, 25, Subhash Road, Dehradun - 248001
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
4. The Member Secretary, Uttarakhand Pollution Control Board, Gaura Devi Bhawan, 46 B IT Park Sahastradhara, Dehradun, Uttarakhand.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
6. The District Collector, Haridwar District, Uttarakhand.
7. Guard File/Monitoring File/Parivesh portal/Record File

27.08.2024

(Ashok Kumar Pateshwary)
Director
E-mail: ak.pateshwary@gov.in
Tel. No. 24695290

REPORT IN COMPLIANCE TO HON'BLE NATIONAL GREEN TRIBUNAL (NGT) ORDER DATED 20.05.2025 IN ORIGINAL APPLICATION NO. 530/2023 IN THE MATTER OF ANUJ KUMAR VS STATE OF UTTARAKHAND WITH ORIGINAL APPLICATION NO. 495/2023 IN THE MATTER OF MOHD AMJAD VS STATE OF UTTAR PRADESH WITH ORIGINAL APPLICATION NO. 369/2024 IN THE MATTER OF MONIKA (SARPANCH) VS STATE OF UTTARAKHAND

1. HON'BLE NGT ORDER DATED 20.05.2025 IN O.A. No. 530/2023

Hon'ble NGT in OA No. 530/2023 in the matter of Anuj Kumar Vs State of Uttarakhand with OA No. 495/2023 in the matter of Mohd Amjad Vs State of Uttar Pradesh with OA No. 369/2024 in the matter of Monika (Sarpanch) Vs State of Uttarakhand directed the following vide its order dated 20.05.2025 (**ANNEXURE – I**):

"15. Hence, we dispose of the O.A by directing the CPCB and UKPCB to carry out the joint inspection of the area and asserting the correctness of the allegation about the burning of spent wash powder by the respondents no. 7 and 8. and also, examine the issue of installation of the incinerator boiler to protect the groundwater from pollution and its feasibility and requirement and if the allegation is found to be correct, take appropriate remedial and punitive action and submit the action taken report through email to Registrar General of this Tribunal within two months. If it is found to be necessary, the matter will be listed for consideration before the Bench."

2. COMPLIANCE REPORT

In compliance of Hon'ble NGT order dated 20.05.2025, a joint committee comprising officials from the Central Pollution Control Board (CPCB) and Uttarakhand Pollution Control Board (UKPCB) carried out the inspection of the unit namely, M/s Rai Bahadur Narayan Singh Sugar Mills Ltd. (Sugar unit and Distillery unit) on June 20, 2025 for asserting the correctness of the allegation about the burning of spent wash powder by M/s Rai Bahadur Narayan Singh Sugar Mills Ltd. (Sugar unit and Distillery unit) and also, examine the issue of installation of the incinerator boiler to protect the groundwater from pollution and its feasibility and requirement and if the allegation is found to be correct.

2.1. Salient Conditions of Environmental Clearance(EC) issued by MoEF&CC on 27/08/2021

The Unit has obtained EC from MoEF&CC on 27/08/2021 with following conditions w.r.t spent wash;

(i) New Ethanol Plant: Spent wash generated in the new ethanol plant will be treated in bio-digester (bio-methanation) followed by Multi Effect Evaporator and concentrated spent wash will be dried in Spray Dryer and the powder will be used as potash rich manure (45 TPD).

(ii) Old Ethanol Plant: The spent wash generated shall be treated by bio-methanation followed by Multi Effect Evaporator and concentrated spent wash will be dried in Spray Dryer (**ANNEXURE – II**).

2.2. Consents & Authorization

The unit has obtained Consolidated Consent and Authorization (CCA) issued by Uttarakhand Pollution Control Board (UKPCB) on 27.08.2024 under Section-25 of the Water (Prevention & Control of Pollution) Act, 1974 and under Section-21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under "Rule-6(2)" of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016" notified under "Environment (Protection) Act, 1986" having validity upto 31.03.2028 for the production of 60 KLD of Ethanol/ENA/RS & 60 KLD of Ethanol by using 372 m^3/day of C-Heavy/B-Heavy Molasses (**ANNEXURE – III**).

2.2.1. Salient Conditions of the Consolidated Consent and Authorization (CCA)

i. The quantity of maximum daily spent wash generation should not be more than 720 KLD.

ii. The unit shall maintain Zero Liquid Discharge (ZLD). ZLD refers to installation of facilities and system which will enable industrial effluent (all streams) for absolute recycling of or re-use in to industrial processes and converting solute (dissolved organic and inorganic compounds/salts) into residue in solid form by adopting method such as concentration/evaporation/drying. ZLD will be recognized and certified based on two broad parameters that is, water consumption versus wastewater reused or recycled (permeate) and correspondingly solids recovered (percent total dissolved/suspended solids in effluents).

iii. Unit shall treat all its process and non-process effluents such as Spent lees, Process condensates, Boiler RO reject, CT blowdown, Softener/DM plant backwash, Pump gland cooling water etc. should be treated through CPU and recycled back in the process.

iv. Maximum storage of Bio-methanated spent wash utilized in dryer shall strictly be restricted to seven days (07) equivalent of concentrated Bio-methanated spent wash generated. Excess storage facilities beyond this shall be levelled and dismantled.

v. Unit shall dispose the spent wash through Bio-methanation followed by MEE and

concentrated spent wash will be dried through Spray Dryers- 02 Nos. and the powder will be used as Potash rich manure (45 TPD each Dryer).

vi. Unit shall collect powder produced from dryer in common silo and should be disposed off as fertilizer.

vii. The industry shall use following fuel and install air pollution control devices (APCD) of adequate capacity to comply with the following:

S. no.	Equipment	Fuel used	Stack Height (m)	Air Pollution Control Device (APCD)	Stack Emission Standards
1.	Spray dryer (45 TPD)	Bagasse-168 TPD	40	Individual Wet Scrubber	PM-150 mg/NM^3
2.	Spray dryer (45 TPD)	Biogas-1500 M^3/day			

viii. Unit shall install an Online Emission Monitoring System (OEMS) on the stacks of the spray dryers for monitoring particulate matter and ensure its continuous (24×7) connectivity to the CPCB/UKPCB server.

2.3. Observations w.r.t Spent Wash Management

i. During visit, old distillery (60 KLD) was operational and new distillery (60 KLD) was not operational.

ii. During visit, the logbook was verified and found that the actual production was 46000 Litres per day (alcohol percentage-9.52%; recovery-23.23 BL per MT of molasses, and molasses consumption was 198 MT) against the consented production of 120000 litres per day.

iii. During visit, fermented wash is generated 483.193 KLD (46000/ (9.52%)=483193 Litres per day=483.193 KLD). Total plant lees generated during visit is 63989 Litres per day (46000 × 1.39=63989 LPD=63.989 KLD). Total spent wash generated during visit was 373.2 KLD against the consented limit of 720 KLD (Spent wash generation = Fermented wash – plant lees – production = 483.193 KLD-63.989 KLD-46 KLD=373.2 KLD). The spent wash is sent to bio digester for further reduction of COD and BOD. The methane gas generated during process is used as biogas fuel.

iv. Bio-methanated spent wash (BMSW) of 373.2 KLD generated from all the bio-digesters is sent to a settling tank of capacity 1925 m^3 for storage. The settling capacity is sufficient to store the concentrated spent wash for 5 days which is less than the consented limit of 7 days. It was observed that the settling tank (with concentrated spent wash) was almost 90% full.

v. Bio-methanated spent wash of 373.2 KLD is then fed simultaneously into 02 nos. of Multi Effect Evaporator (MEE) of capacity 840 KLD each. The MEE concentrate and MEE condensate generated was 110.9 KLD (30%) and 262.2 KLD (70%), respectively.

vi. The MEE concentrate of 110.9 KLD is then fed to both the spray dryers (45.45 KL was into the old dryer and 65.49 KL was fed into the new dryer) of capacity 45 TPD each to generate powder. Unit is using bagasse and bio-gas as fuel for meeting energy requirements in Dryer. On the day of visit, both the dryers were found operational. From logbook data, powder produced from the 2 spray dryers was 43.02 TPD {(43.02 TPD = (110.9 x 0.41)/1.03} whereas MEE concentrate specific gravity is 1.03 with 41% concentrated. Out of the total powder produced, 12.6 TPD was sold, rest 30.4 TPD was converted into granules. The 2 spray dryers were operated at less than the consented capacity of 90 TPD.

vii. The MEE condensate, i.e., 262.2 KLD is sent to Condensate Polishing Unit (CPU) for further treatment. The Condensate Polishing Unit comprises of: Equalization Tank, UASB Reactor, Aeration Tank, Secondary Clarifier, Chemical Dosing Tank, Lamella Clarifier, Dual Media Filter and Activated Carbon Filter. Treated water from CPU is used in cooling tower make-up and molasses dilution in fermenters.

viii. The unit has installed a granulation plant of capacity-100 TPD in the year 2025 for production of potash-rich manure. Unit used wood as fuel (3 MT/D) in the granulation plant. Stack height of 30 m is provided along with wet scrubber as Air Pollution Control Device. The Unit has applied to UKPCB for addition of granulation process and allied equipment in Consolidated Consent and Authorization.

ix. During visit, granulation plant was operated with 50% capacity. The unit was mixing 50% of spent-wash powder and 50% boiler ash to produce potash-rich manure. The unit has stored rest 50% of powder in the stock yard (earlier bio-composting yard). The unit has stopped bio-composting since December 2024. The unit has obtained certificate of manufacture of fertilizer/bio fertilizer/organic fertilizer/non-edible oiled cake under the provisions of Fertilizer (Control) Order, 1985 issued from the Directorate of Agriculture, Dehradun (Uttarakhand) on 21/01/2025 (**ANNEXURE-IV**).

x. Unit has provided the logbook for granules production for the period April 1-June 20, 2025 and the average granules production is 17.6 TPD.

xi. The unit has also made an agreement dated 08/02/2025 with M/s Green Land Agri Marketing India Pvt. Ltd. having validity up to 07.02.2026 with mutual agreement on the following points:

- The minimum target of lifting 400 MT per month of bio-methanated granules and will be given in old HDPE/PP bags.

xii. The unit has dismantled the previously used bio-composting yard (approximately 15 acres) and is now utilizing this area for the storage of stock powder prior to the formulation of granules in the granulation plant for fertilizer production. During the visit, it was observed that around 1 acre of the area was being used to store powder in PP/HDPE bags. However, only about 0.5-acre area had covered shed for storage. It was also observed that powder is hygroscopic in nature, leading to the formation of lumps due to moisture absorption.

xiii. During visit, no open burning of powder (Spent wash powder) was observed.

xiv. As per the Environmental clearance condition of MoEF&CC and CCA condition of UKPCB, industry is required to install Spray Dryer wherein it is mentioned that "The spent wash generated shall be treated by bio-methanation followed by Multi Effect Evaporator and concentrated spent wash will be dried in Spray Dryer". The industry has complied with the EC condition along with the CCA condition of UKPCB. So, installation of incineration boiler by the unit is not required.

3. CONCLUSION

The industry has complied with the EC condition along with the CCA condition of UKPCB w.r.t installation of MEE followed by spray dryers for concentrate of spent wash. So, installation of incineration boiler may not be required by the unit. No open burning of powder (Spent wash powder) was observed.

4. RECOMMENDATIONS

i. The unit shall ensure that bio-methanated spent wash (currently stored in settling tank) is stored in a proper storage tank to prevent any spillage so that there is no contamination of Laksar drain flowing adjacent to the settling tank.

ii. As observed during visit, the settling tank was 90% filled with bio-methanated spent wash & in order to rule out any possibility of spillage/overflow of bio-methanated spent wash into Laksar drain, it is recommended that the unit shall consume the stored bio-methanated spent wash through MEE and spray dryer during the non-operational period (i.e., from 15/07/2025 to 30/09/2025) as informed by the unit.

iii. The unit shall operate the granulation plant for fertilizer production after obtaining Consent to Operate from Uttarakhand Pollution Control Board.

iv. As per the consent conditions, the unit shall install an Online Emission Monitoring System (OEMS) on the stacks of the spray dryers for monitoring particulate matter and ensure its continuous (24×7) connectivity to the CPCB/UKPCB server.

v. The unit shall provide a designated area with an impervious lined floor and a shed for the proper storage of powder generated from the spray dryer. The unit shall immediately provide covered shed for storage of powder.

vi. Unit shall improve overall housekeeping within the premises.

5. Joint Inspection Team

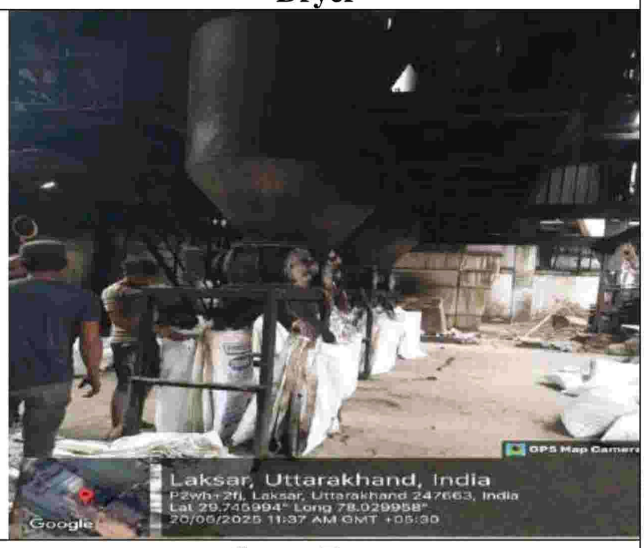
Name of the Official	**Designation & Organization**	**Signature**
Sh. Dinabandhu Gouda	Scientist-F and Divisional Head, WQM-II Division, Central Pollution Control Board, Delhi	
Sh. Rajendra Singh	Regional Officer Roorkee, Uttarakhand Pollution Control Board	04.07.2025

Photographs taken during visit

Flow meter installed at Feed to Old Spray Dryer

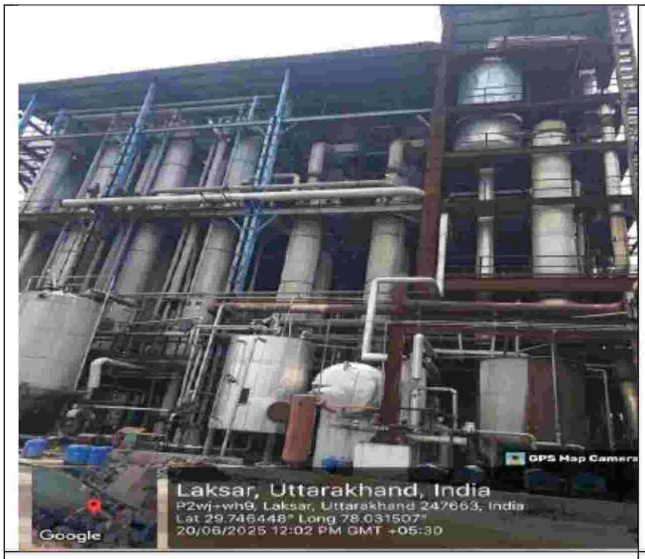
Flow meter installed at Feed to New Spray Dryer

Spray Dryer



Spray Dryer

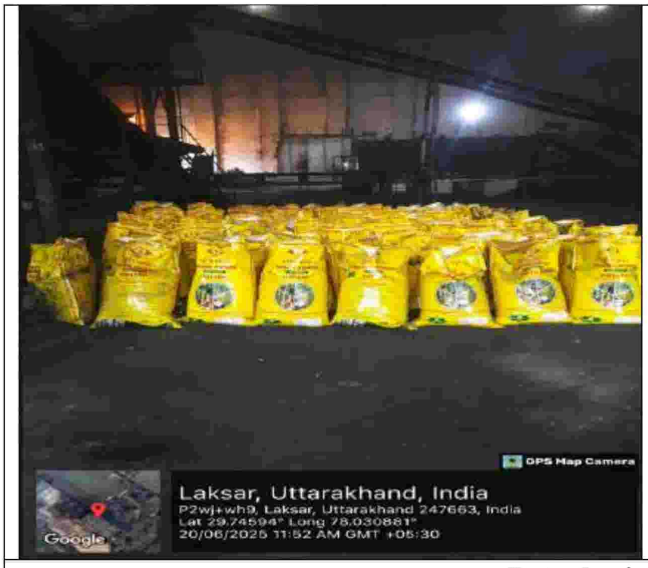
Powder (Spent wash powder)

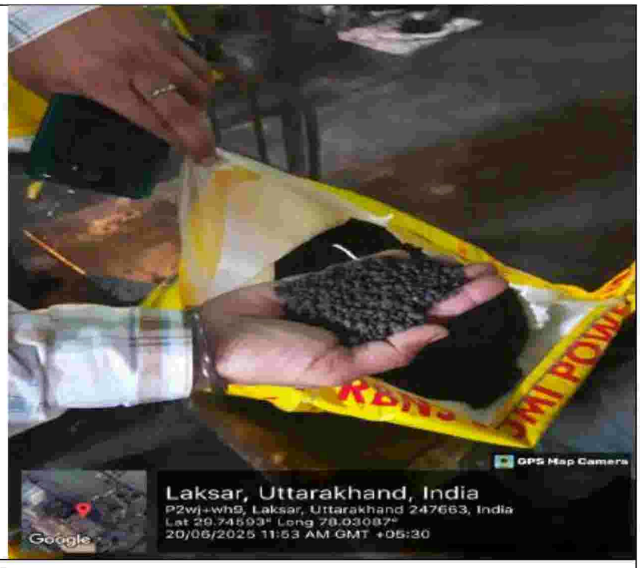


Multi Effect Evaporator

Stored bio-methanated spent wash

Fertilizer Granulation Plant





Potash-rich manure

Shed for storage of powder before production of fertilizer

Under-construction shed for storage of powder before production of fertilizer

Item Nos. 09 to 11 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 530/2023
(I.A No. 387/2025, I.A No. 97/2025)

Anuj Kumar Applicant

Versus

State of Uttarakhand Respondent(s)

WITH

Original Application No. 495/2023

Mohd Amjad Applicant

Versus

State of Uttar Pradesh Respondent(s)

WITH

Original Application No. 369/2024

Monika (Sarpanch) Applicant

Versus

State of Uttarakhand Respondent(s)

Date of hearing: 20.05.2025

CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER

Applicant: Mr. Prakash Pandey, Adv. for Applicant in OA 530/2023 (Through VC)

Mr. Rahul Khurana & Mr. Hasil Jain, Advs. for Applicant in OA 495/2023

Respondents: Mr. Manish Singhvi, Senior Advocate with Mr. Manish Jain & Mr. Vikash Kumar Verma, Advs. for R - 7 & 8
Mr. Mukesh Verma & Ms. Vatsala Tripathi, Advs. for UKPCB (Through VC)
Mr. Pradeep Misra & Mr. Daleep Dhyani, Advs. for UPPCB (Through VC)
Mr. Vikrant Pachnanda, Adv. for MoEF & CC in OA 530/2023 (Through VC)
Mr. Adarsh Chamoli, Adv. for the State of Uttarakhand (Through VC)
Mr. Saurabh Balwani, Adv. for CPCB in OA 530/2023
Ms. Suman Arora, Adv. for CPCB in OA 369/2024

ORDER

1. In this Original Application, the applicant has complained about non-compliance and violation of the norms by the respondent no. 7 and 8.

2. The Tribunal by order dated 23.08.2023 had appointed the Joint Committee with a direction to the Committee to visit the site and look into the grievances raised by the applicant and verify the factual position.

3. The Joint Committee had submitted two reports dated 21.11.2023 and 24.01.2024.

4. In the said reports, the Joint Committee had pointed out as many as 24 violations and the respondent no. 7 and 8 had responded to them and thereafter, the CPCB had filed the compliance status in respect of all the 24 recommendations/observations of the Joint Committee in its report dated 19.03.2024 disclosing the compliant status as under:-

"

S. No.	Observations/violations/ Recommendations observed in the Joint inspection reports dated 21.11.2023 and 24.01.2024	Reply filed by Respondent Nos. 7 and 8	Compliance status
1.	Provision of laying out a closed conduit pipe line at Laksar drain (which is currently flowing as open channel) starting from 500 meters upstream (u/s) to 500 meter downstream (d/s) of unit shall be made by the unit under supervision of UKPCB to rule out any possibility of discharge of treated/untreated effluent into drain.	No comments filed	**NON COMPLIANT**
2.	It shall be the responsibility of the unit to maintain the quality of Laksar drain at downstream of the unit in sync with the quality at upstream of the unit.	No comments filed	• **NON COMPLIANT** • As per Joint inspection report dated 24.01.2024, the **analysis results of the sample collected from downstream of the unit (near Akhoda Kalan village) showed BOD-626mg/l & COD-1638mg/l whereas sample at upstream of the unit showed lower**

			concentration of BOD……& COD ……. which indicate deterioration in the quality of Laksar drain. (Refer Page 143 (Point 4) of Report dated 24.01.2024)
3.	The unit shall install flow meters at the abstraction points on both the bore wells of sugar and distillery unit.	The unit shall install flowmeters on bore wells of both Distillery and Sugar Divisions, up to end of March, 2024, as per Letter dated 23.02.2024 from General manager (GM) of M/s R.B.N.S Ltd. which is annexed herewith as **Annexure IV.**	• Unit asked for timeline till March, 2024. • UKPCB may verify the same.
4.	Based on the analysis results, the quality of Laksar drain near Akhoda Kalan village (1.68 Kms*) shows Deteriorated Condition, therefore, the possibility of effluent mixing with sewage in drain cannot be ruled out.	No comments filed	**NON COMPLIANT**
DISTILLERY DIVISION			
5.	The unit had 3 lagoons of total capacity of 5222m^3 which were found fully filled with raw spent wash/ bio-methanated spent wash having total solids percentage less than 17% even during monsoon season and as these lagoons are located adjacent to Laksar drain hence there is potential of spillage/ overflow/ discharge of spent wash in the Laksar drain. **This is the violation of CPCB direction dated 07.12.2015.**	No comments filed	**NON COMPLIANT** (Refer at Page 67 (first and second Bullet) of report dated 22.11.2023)
6.	The unit shall consume the concentrate spent wash stored in lagoons of capacity 1925m3 and 1375 m3 in dryer in environmentally sound manner thereafter, unit shall dismantle 02 lagoons. As per the consent, w.e.f. 01.01.2024 the unit is permitted to have lagoon capacity only to store 07 days equivalent of concentrated spent wash generated, however the unit is having excess lagoon capacity in violation of Consent condition.	The unit shall dismantle the lagoon upto June, 2024, as per Letter dated 23.02.2024 from GM of M/s R.B.N.S Ltd.	• **NON COMPLIANT** • Unit asked time up to June 2024, which is in violation of consent condition issued by UKPCB.
7.	The unit was storing Bio-methanated spent wash (BMSW)/ raw spent wash in lagoons with solid content <30%, which is in violation of CPCB direction dated 07.12.2015.	The unit is not disposing concentrated spent wash through bio-composting after December, 2023, as per Letter dated 23.02.2024 from GM of M/s R.B.N.S Ltd.	• **NON COMPLIANT** • As per Joint inspection report dated 24.01.2024, the analysis results of the sample collected from lagoons showed Total Solids between 37% to 46%. However, during joint inspection carried out on 13.12.2023 the unit was disposing concentrated

			spent wash through bio-composting also. • Unit's submission regarding not disposing concentrated spent wash through bio-composting after December, 2023 may be commented/verified by UKPCB.
8.	The unit is discharging its distillery effluent from bio-composting/lagoons and sugar effluent in to the Laksar drain, which is the violation to Zero Liquid Discharge (ZLD)/discharge condition resulting in high pollution level of BOD (626mg/l) and COD (1638mg/l) which is about 17% higher than the upstream water quality of the drain.	No comments filed	**NON COMPLIANT**
9.	In bio-compost yard, the covered shed was damaged and improper. Also, the leachate collection drain and pits were not observed around the periphery of bio-compost yard for leachate management. Also, the unit had not constructed any boundary wall near the compost yard. This is the violation of CPCB bio-compositing SOP.	No comments filed	**NON COMPLIANT** (Refer page 68 (Bullet point 4- Point i & ii) and Page 69 (point v) of report dated 22.11.2023) (Refer at page 123 (point V (iv) of report dated 24.01.2024)
10.	Ready bio-compost was found stored in damaged covered shed. Also, in bio-compost yard; leachate collection drain and pits were not observed around the periphery for leachate management, which is the violation of Standard Operating Operations (SOP) for bio-composting operations as per CPCB guidelines.		
11.	The unit shall dispose all the stored ready bio-compost and press mud in bio-compost yard by adapting appropriate scientific method under the supervision of UKPCB within two months and after that the unit shall clean the bio-compost area and shall submit photographic evidence to UKPCB.	The unit shall sell all bio-compost upto June, 2024, as per Letter dated 23.02.2024 from GM of M/s R.B.N.S Ltd.	• **NON COMPLIANT**
12.	The unit shall prepare adequacy and performance assessment report of ZLD scheme for molasses based distillery as unit has expanded its production capacity from **60 KLPD to 120 KLPD** and has installed spray dryers as ZLD system.	The National Sugar Institute (NSI) Kanpur team visited M/s R.B.N.S. Ltd. (Distillery Division) on 19th and 20th December, 2023 and prepared a report, which states that MEE (capacity 840 m3/day) installed are found adequate. Copy of NSI Report (Distillery Division) dated 19/20.12.2023 is annexed herewith as **Annexure V.**	• **NON COMPLIANT** • NSI adequacy report dated 19/20.12.2023 submitted by the unit is incomplete as assessment done only for Bio-composting route. • No information about the Adequacy of the Dryer is there in the report.

13.	The unit shall comply with the consent conditions issued by UKPCB and shall ensure that no fresh concentrated spent wash shall be disposed through bio-composting and entire spent wash shall be totally disposed through spray dryer.	The unit has informed that it is not disposing concentrated spent wash through bio-composting after December, 2023, as per Letter dated 23.02.2024 from GM of M/s R.B.N.S Ltd.	UKPCB may comment/verify.
14.	Analysis results of samples collected from Bore well (sugar unit), piezo well located within molasses based distillery plant and hand pump located outside of the **unit showed high value of COD in the range of 6 to 33 mg/l**, which indicate posing potential threat to ground water and need urgent attention towards improvement of housekeeping, prevention of seepage, spillage etc.	No comments filed	**NON COMPLIANT**
	SUGAR DIVISION		
15.	The unit should get evaluation of its Effluent Treatment Plant (ETP) for its performance from Expert Institute of Repute/Experts in the field.	The NSI Kanpur team visited M/s R.B.N.S. Ltd. (Sugar Division) on 19th and 20th December, 2023 and prepared a report. Copy of NSI Report (Sugar Division) dated 19/20.12.2023 is annexed herewith as **Annexure VI.**	• **NON COMPLIANT** • In the ETP Validation report dated 19/20.12.2023 prepared by NSI, ETP sub-units such as Oil & Grease trap, Equalization tank, Aeration tank, Multi Grade Filters (MGF), and Activated Carbon Filters (ACF) were found inadequate. • In the ETP Validation report, the NSI has given recommendations for implementation by the unit. • The unit has not submitted any reply regarding the implementation status of the recommendations given in the report. (Refer Page 139 (Point 7, 9 & 11), Page 140 (Point 5, 6 & 9), Page 136 (Point 31) and Page 135 (Point 30) of Report dated 24.01.2024)
16.	The unit does not properly operate the effluent treatment plant installed in sugar unit as it was found NON COMPLIANT w.r.t. the notified discharge norms.		
17.	The unit shall install air mixing system in Equalization Tank for proper homogenization of effluent.		
18.	The unit shall relocate the oil and skimmer belt at appropriate place to collect the entire Oil & Grease content of the effluent.		
19.	The unit shall ensure proper functioning of lime dosing system.		
20.	The unit shall operate Primary Clarifier properly to avoid anaerobic condition in the tank.	No comments filed	• **NON COMPLIANT** • Present operational status of the Primary Clarifier may be commented/verified by UKPCB.

21.	As per consent provided by UKPCB, unit has to install the sewage treatment plant (STP) in their premises for treatment of generated sewage. However, as per the joint inspection report dated 21.11.2023, no STP is installed by the unit thus violating the consent condition.	No comments filed	• As per the joint inspection report dated 24.01.2024, the unit submitted the purchase order for 03 STPs of designed flow 15 m3/day. • Status of installation of the STPs may be commented/verified by UKPCB (Refer Page 131 (Point 55) and Page 138 (Point 54) of Report dated 24.01.2024)
22.	The unit has not yet prepared a comprehensive irrigation management plan validated by SPCB/ Agricultural Universities for utilizing the treated effluent in irrigation as per notified treated irrigation protocol for sugar industries.	No comments filed	**NON COMPLIANT**
23.	The unit shall maintain the proper record of ash disposal in low lying area.	No comments filed	**NON COMPLIANT**
24.	Unit must ensure regular water sprinkling in and around the boiler and near bagasse storage area of the unit to minimize the dust dispersion in the ambient environment.	No comments filed	**NON COMPLIANT**

"

5. Thereafter, CPCB had filed a fresh report on 22.07.2024 about the status found by the CPCB team at the ground level during its visit dated 24-25 June, 2024, in respect of the compliance status of 24 recommendations made by the Joint Committee. The report of the CPCB dated 22.07.2024 was as under:-

S. No. as per reply submitted by project proponent	**Recommendations made in the Joint inspection reports dated 21.11.2023 & 24.01.2024, Compliance submitted by project proponent, and factual status observed by CPCB team during visit on 24th – 25th June, 2024**

1.	**Recommendation** Provision of laying out a closed conduit pipe line at Laksar drain (which is currently flowing as open channel) starting from 500 meters upstream (u/s) to 500 meter downstream (d/s) of unit shall be made by the unit under supervision of UKPCB to rule out any possibility of discharge of treated/untreated effluent into drain. ***Compliance submitted by project proponent:*** • *Unit will make perfect provision fully covered RCC slab upto end of June, 2024 to avoid any possibility of any discharge of effluent into Laksar Drain. It is a Nagar Panchayat Drain.* • *Laksar is a flood prone area and conduit pipes obstruct flow of the uncounted water in rainy session.* • *Unit written letter dated 31.03.2024 to seek permission from Local body administration for installation of Conduit Pipe, however Local administration denied on 15.04.2024.* **Factual status observed by CPCB team on recent visit**: • The unit has not provided closed conduit pipe line at Laksar drain. Unit representative informed that this drain is in jurisdiction of Nagar Panchayat, Laksar. • Unit vide letter dated 31.03.2024 sought permission from district administration regarding construction/laying of closed conduit (pipe) over Laksar drain. • District administration (i.e. Nagar palika parishad) vide letter dated 15.04.2024 communicated to the unit that considering the fact that unit falls under flood prone area, construction/laying of closed conduit pipe is not advisable. Copy of unit's letter dated 31.03.2024 is attached as **Annexure – 10**. Copy of letter dated 15.04.2024 from District administration (i.e. Nagar palika parishad) is attached as **Annexure – 11.**

2., 4

Recommendation:

- It shall be the responsibility of the unit to maintain the quality of Laksar drain at downstream of the unit in sync with the quality at upstream of the unit.
- Based on the analysis results, the quality of Laksar drain near Akhoda Kalan village (1.68 Kms*) shows Deteriorated Condition, therefore, the possibility of effluent mixing with sewage in drain cannot be ruled out.

Compliance submitted by project proponent:

- *UKPCB is monitoring water quality of Laksar Drain regularly on monthly basis.*
- *As per 2nd Joint Committee inspection on 13/14 Dec 2023 Relevant Portion of Report Table No. 20 on Page 647-48 upstream Result is pH-7.4, BOD-35, COD-112, TDS- 1404 & TSS-53, And Downstream result near Akoda Kalan Village is pH-7.0, BOD-108, COD-232, TDS-1804 & TSS-60. 1st JT Report table 11 on page no. 88-90. Laksar drain d/s R.B.N.S BOD-11 mg/L, COD-66 mg/L, TSS-18 mg/L & TDS-396 mg/L.*
- The analysis result of samples collected from drain at U/s and D/s locations indicate the characteristics of domestic sewage. However, quality of Laksar drain near Akhoda Kalan village (1.68 Kms*) shows Deteriorated condition of drain, which indicate the possibility of effluent mixing with sewage in drain however, no bypass of industrial effluent (sugar/distillery) was observed from the unit during inspection".
- Akoda Kalan is about 1.68 km from sugar mill. Untreated Discharge from Khera, Kharanja & Akoda Kala village merge in the Laksar drain. Untreated sewage from More than 7-8 nalas falls into the Laksar Drain.

Factual status observed by CPCB team on recent visit:

Table 1: Analysis results of samples collected from Laksar drain

Parameters	Laksar drain upstream of unit	Laksar drain downstream of unit	Laksar drain near Akhoda Kalan village (1.68 Kms downstream of unit)
pH	7.7	8	7.9
BOD (mg/l)	20	05	41
COD (mg/l)	75	38	129
TSS (mg/l)	27	29	47
TDS (mg/l)	216	944	796
NO^{3-} (mg/l)	0.8	4.6	BDL
SO_4^{2-} (mg/l)	36	68	144

samples
tails are

- **The analysis results of samples collected from drain at above mentioned locations indicate no impact of industrial discharge and reflect characteristics of surface run-off.**

Compliance status: Complying

3.

Recommendation:

- The unit shall install flow meters at the abstraction points on both the bore wells of sugar and distillery unit.

Compliance submitted by project proponent:

- The unit has installed water flow meters at bore wells of sugar mill and distillery unit.

Factual status observed by CPCB on recent visit:

Borewell Location	Permitted no. of borewells as per NOC from CGWA	Actual no. of borewells installed	Flow meter installed (Yes/No)	Functional status
Sugar unit	01	01	Yes	Functional
Distillery unit	01	*Nil as on date of visit	Not relevant	Not relevant

Remark:

a. Flow meter with totalizer found installed at the delivery line of the Borewell within sugar unit (Refer Photo 18). This borewell was found operational.
Reading noted during visit:
Instantaneous reading – 42.0 m^3/hr;
Totalizer reading – 028276 m^3

b. *Borewell (distillery unit) was in dismantled condition as the submersible motor collapsed (Refer Photo 8) and the unit was in process of setting up of new Borewell (Refer Photo 9) within premises (Latitude: 29.748056, Longitude: 78.032222)

Pending Action:
Unit shall install flow meter with totalizer at the new borewell (distillery unit) when it becomes functional and logbook regarding groundwater withdrawal on daily basis.

Compliance status: Partial compliance. To be complied as &when new Borewell becomes functional

5. 6. & 7

Recommendation:

- The unit had 3 lagoons of total capacity of 5222 m^3 which were found fully filled with raw spent wash/ bio-methanated spent wash having total solids percentage less than 17% even during monsoon season and as these lagoons are located adjacent to Laksar drain hence there is potential of spillage/ overflow/ discharge of spent wash in the Laksar drain. This is the violation of CPCB direction dated 07.12.2015.
- The unit shall consume the concentrate spent wash stored in lagoons of capacity 1925m^3 and 1375 m^3 in dryer in environmentally sound manner thereafter, unit shall dismantle 02 lagoons.
- As per the consent, w.e.f. 01.01.2024 the unit is permitted to have lagoon capacity only to store 07 days equivalent of concentrated spent wash generated, however the unit is having excess lagoon capacity in violation of Consent condition.
- The unit was storing Bio-methanated spent wash (BMSW)/ raw spent wash in lagoons with solid content <30%, which is in violation of CPCB direction dated 07.12.2015.

Compliance submitted by project proponent:

- *In Rainy session heavy rain fall was recorded as 1300 mm which is huge quantity of rain water.*
- *During December 2023 by inspection solid % is 37 to 46 % found. (during time of Distillery was operational) which is as per directions of CPCB dated 07.12.2015.*
- *One lagoon capacity 1372 m^3 has been dismantled and 2nd 1925 m^3 lagoon will be dismantled upto end of June, 2024.*
- *Lagoon capacity is 1925, which is equivalent of 7 days' capacity of concentrated spent wash as per consent.*

Factual status observed by CPCB on recent visit:

The unit has filled/levelled 02 nos. of lagoons of capacity 1925 m^3 and 1375 m^3(located adjacent to Laksar drain) with boiler ash. (Refer Photo 10)

- The unit has now retained only one lagoon (settling tank) of capacity 1925 m^3 which is dedicated for storage of bio-methanated spent wash and the same was found empty (Refer Photo 11). Hence currently available capacity is equivalent to

03 days' storage capacity (considering typical raw spent wash generation rate - 7 KL/KL of product, production capacity of 120 KLPD, therefore spent wash generation per day = 120 * 7 = 840 KLD or 840 m^3/day, hence available storage capacity equivalence in no. of days = 1925 m^3/ 840 m^3 per day = 2.29 i.e. 03 days), **which is in compliance of CPCB direction dated 07.12.2015**.

- No overflow/spillage/discharge of spent wash/effluent from distillery unit found in the Laksar drain.
- Logbooks were collected by the inspection team regarding following for duration 01.01.2024 – 30.04.2024 (plant closed from 30.04.2024 till date of visit) for verification of consumption of legacy spent wash in dryer (ZLD system):
  a. raw spent wash generation from old & new distillation plant,
  c. feed to old MEE & new MEE concentrated spent wash generation from old MEE & new MEE
  d. feed to dryer-1 (old) & dryer-2 (new)
- Details of data from above mentioned logbooks are mentioned in table 2 below:

Table 2: Details of raw spent wash generation, feed to MEE, concentrated spent wash generation and spent wash feed to dryer

	Raw Spent wash generation (MT)	Feed to MEE (MT)	Concentrated Spent wash from MEE (MT)	Condensate from MEE (MT)	Concentrated Spent wash feed to Dryer (MT)
Old plant	37764.48	37764.71	11193.42	26571.29	11840.72
New plant	30551.81	30550.88	9071.72	21479.16	8953.93
Total	68316.29	68315.59	20265.14	48050.45	20794.65
Difference between quantity of concentrated spent wash generated from both MEE and feed to dryers = 20265.14 MT – 20794.65 MT = **- 529.51 MT**					

- **It is evident from the above data that unit has consumed 529.51 MT of legacy spent wash that was found stored in lagoons during last visit (13th – 14th Dec, 2023)**
- Unit has installed Condensate Polishing Unit (CPU) for treatment of low strength effluents (i.e. MEE condensate, spent lees, boiler blowdown, cooling tower blowdown and floor washings), and as per the effluent management scheme the treated effluent from CPU is being reused in molasses dilution, floor washing and as make up water in cooling tower.

Compliance status: Complying

8. **Recommendation:**

- The unit is discharging its distillery effluent from bio-composting/lagoons and sugar effluent in to the Laksar drain, which is the violation to Zero Liquid Discharge (ZLD)/discharge condition resulting in high pollution level of BOD (626 mg/l) and COD (1638 mg/l) which is about 17% higher than the upstream water quality of the drain.

Compliance submitted by project proponent:

- *No effluents discharged by the distillery. Unit has complied with ZLD norms as per CPCB. see details of UKPCB Affidavit on page No. 772.*
- *Bio-composting has been stopped since 01.01.2024 as per CCA of UKPCB dated 06.10.2023. Page no. 667.*
- *Due to non-operation of Bio-composting, Unit is facing huge loss in terms of Money and*
  14.02 Acre Land, Machinery etc.

Factual status observed by CPCB team on recent visit:

1. No bio-composting activities were going on and the infrastructure such as covered shed (including truss structure) was being dismantled. (Refer Photo 12 & 13)
2. The unit has filled/levelled 02 nos. of lagoons of capacity 1925 m^3 and 1375 m^3 with boiler ash and one lagoon of capacity 1925 m^3 was found empty.
3. No discharge of distillery effluent from bio-composting/lagoons observed in to the Laksar drain.
4. Treated effluent from ETP (sugar unit) was being discharged in to the Laksar drain. Samples were collected from ETP outlet and analysis results show BOD – 05 mg/l (against the norm of 30 mg/l); COD – 29 mg/l (against the

	norm of 250 mg/l); TSS – 16 mg/l (against the norm of 30 mg/l); TDS – 884 mg/l (against the norm of 2100 mg/l); Oil & grease – BDL mg/l (against the norm of 10 mg/l). These results indicate compliance w.r.t. stipulated discharge norms except **pH – 8.7** which is marginally exceeding the norm of 8.5. The analysis result of samples collected from drain (details in Table 1 above) indicate no impact of industrial discharge and reflect characteristics of surface run-off (BOD in the range of 05 – 41 mg/l & COD in the range of 38 – 129 mg/l). Details of samples collected from laksar drain are mentioned above in table – 1. **Compliance status:** **Complying**
9., 10. & 11.	**Recommendation:** • In bio-compost yard, the covered shed was damaged and improper. Ready bio-compost was found stored in damaged covered shed. Also, the leachate collection drain and pits were not observed around the periphery of bio-compost yard for leachate management. Also, the unit had not constructed any boundary wall near the compost yard. This is the violation of CPCB bio-compositing SOP. • The unit shall dispose all the stored ready bio-compost and press mud in bio-compost yard by adapting appropriate scientific method under the supervision of UKPCB within two months and after that the unit shall clean the bio-compost area and shall submit photographic evidence to UKPCB. **Compliance submitted by project proponent:** • *Total sale of Bio-compost will be achieved up to the end of June, 2024.* • *No need for covered shed required in future.* • *Unit had constructed Boundary walls since 2014 to protect Bio-compost yard.* • *During rainy season 2023, a piece of Boundary wall about 20-25 meters was damaged at the time of Flood.* • *Damaged wall has already been constructed* • *Unit will make all efforts to dispose stored Bio-Compost upto end of June, 2024.* • *Unit will definitely submit photographic as evidence to UKPCB.* • *NSI team visited on 19/20.12.2023. At the time of inspection New Dryer was under trial. Both (2) spent wash dryers are in working condition and compatible to achieve the ZLD norms in Distillery unit. see details of CPCB Affidavit.* • *Unit has complied with ZLD norms as per CPCB. see details of UKPCB Affidavit* **Factual status observed by CPCB team on recent visit:** • Since 01.01.2024, the unit has stopped bio-composting activities in compliance to the conditions mentioned in the CCA dated 06.10.2023 issued by UKPCB, hence, now there is no relevance of covered shed, leachate collection drain & pits and the applicability of SOP for bio-composting operations is also not relevant. (Refer Photo 12 & 13) • Unit has constructed boundary wall near the bio-compost yard. (Refer Photo 14) • Cleaning of bio-compost yard was under process. Though, no bio-compositing activity was taking place and the covered shade were being dismantled. • Around 70000 – 80000kg of ready bio-compost found stored in the yard in form of heaps, and unit representative informed that they will sell this bio-compost till 15th July, 2024. (Refer Photo 13) **Pending Action:** Unit shall clear up all the ready bio-compost stored in compost yard at the earliest and submit photographic evidence to CPCB & UKPCB. Also to avoid leachate run-off discharge in drain, the unit shall ensure to keep the stored ready bio-compost covered till it is completely removed from the bio-compost yard. **Compliance status:** **Partial compliance**

12.	**Recommendation:** • The unit shall prepare adequacy and performance assessment report of ZLD scheme for molasses based distillery as unit has expanded its production capacity from 60 KLPD to 120 KLPD and has installed spray dryers as ZLD system. **Compliance submitted by project proponent:** • *NSI team visited on 19/20.12.2023. At the time of inspection New Dryer was under trial. Both (2) spent wash dryers are in working condition and compatible to achieve the ZLD norms in Distillery unit.* • *Unit has complied with ZLD norms as per CPCB* **Factual status observed by CPCB team on recent visit:** • The unit has provided a copy of "Adequacy and performance assessment report of ZLD scheme for molasses based distillery" prepared by National Sugar Institute, Kanpur (NSI), which is based on the old scheme of ZLD through bio-composting route. • However, since 01.01.2024 the unit has stopped the bio-composting route permanently, and commissioned 02 nos. of dryers of capacity 45 TPH to achieve ZLD. Adequacy and performance assessment report of ZLD for current scheme is not provided. Copy of "Adequacy and performance assessment report of ZLD scheme for molasses based distillery" is attached as **Annexure – 12** **Pending Action:** The unit shall submit the "Adequacy and performance assessment report of ZLD scheme for molasses based distillery", as per new scheme clearly mentioning about the details of 02 nos. of dryers. **Compliance status: Non – compliance**
13.	**Recommendation:** • The unit shall comply with the consent conditions issued by UKPCB and shall ensure that no fresh concentrated spent wash shall be disposed through bio-composting and entire spent wash shall be totally disposed through spray dryer. **Compliance submitted by project proponent:** • *Spent wash dryers are in working condition and compatible to achieve the ZLD norms in Distillery unit.* • *Unit has complied with ZLD norms as per CPCB* **Factual status observed by CPCB team on recent visit:** • As per the consent conditions, unit is complying for following: a. The unit has stopped bio-composting since 01.01.2024 and shifted to dryer technology for achieving ZLD b. The unit has restricted the lagoon capacity to 03 days (<07 days) c. The unit has filled/levelled 02 nos. of lagoons of capacity 1925 m^3 and 1375 m^3 with boiler ash. • As per the details mentioned in Table 2 at S. No. 5, 6 & 7, it is evident that unit has not disposed any fresh concentrated spent wash through bio-composting. Entire quantity of spent wash has been disposed through 02 nos. of spray dryers. **Compliance status: Complying**

14

Recommendation:

- Analysis results of samples collected from Bore well (sugar unit), piezo well located withir molasses based distillery plant and hand pump located outside of the unit showed higl value of COD in the range of 6 to 33 mg/l, which indicate posing potential threat to ground water and need urgent attention towards improvement of housekeeping, prevention o seepage, spillage etc.

Compliance submitted by project proponent:

- *The sample was taken by the Joint Committee just after heavy rains and floods in this area.*
- *Housekeeping is proper; there is no seepage and spillage etc. NSI Report in Dec 20123 o Bore well are as per standard norms as pH-7.2, BOD-BDL, COD-BDL, TDS-426 ppm & TSS-BDL*

Factual status observed by CPCB team on recent visit:

- Samples were collected from the Borewell (sugar unit) and analysis results are mentioned in table 3 below:

Table 3: Analysis results of samples collected from Borewell (Sugar unit)

Parameters	Borewell (Sugar Unit)	BISIS10500:2012(Permissible limit in absence of alternative source)
pH	7.9	6.5-8.5
Conductivity (µmho/cm)	982	-
TDS	550	2000
COD	**10**	-
Total Hardness	379	600
Chloride	32	1000
Phosphate	0.1	-
Fluoride	0.39	1.5
Colour (Hazen)	BDL	15
Sulphate	59	400
Nitrate	0.57	45
Total Alkalinity	410	600
Note: All values are in mg/l except pH, colour, and conductivity		

- Analysis results of samples collected from Borewell located in unit premise was found within the permissible limit as per BIS IS 10500:2012 except COD (10 mg/l).
- The unit has sealed the piezowell (located near molasses tanks within distillery plant) with concrete to avoid the possibility of contamination of groundwater in piezowell due to seepage or spillage.
- Housekeeping found satisfactory.
- No seepage, spillage of effluent observed within and outside of premise.
- It was recommended in the earlier report dated 21.11.2023 that UKPCB shall carry out detailed assessment of groundwater quality including ground water sampling & analysis in and around the unit to ascertain the groundwater contamination, if any, and need for remediation. Depending on such study, detailed remedial action plan be also prepared and executed by UKPCB in time bound manner. However, the detailed assessment of groundwater quality is yet to be initiated by UKPCB.

Compliance status: Non-Compliance

<table>
<tr><td>16</td><td>

Recommendation:

- The unit does not properly operate the effluent treatment plant installed in sugar unit as it was found NON COMPLIANT w.r.t. the notified discharge norms.

Compliance submitted by project proponent:

- *Complied with all the recommendations.*
- *As per NSI and UKPCB, ETP treated water reports as per prescribed norms. Therefore, ETP performance is up-to the mark. pH - 7.1, BOD - 29 mg/Ltr., COD - 120 mg/Ltr., TSS - 22 mg/Ltr., TDS - 560 mg/Ltr*

Factual status observed by CPCB team on recent visit:

- During visit, the inspection team collected samples from ETP inlet, aeration tank, ETP outlet and lagoon (for sugar unit). Analysis results are mentioned in table 4 below:

Table 4: Analysis results of samples collected from inlet, outlet & aeration tank of ETP, and lagoon in the Sugar unit

Location	pH	BOD	COD	TSS	TDS	SO_4^{2-}	Oil & grease
ETP Inlet	7.7	179	568	207	1480	380	-
ETP Outlet	**8.7**	05	29	16	884	121	BDL
Lagoon (Sugar unit)	**8.8**	20	132	25	700	109	-
Norms as per consent	6.5 – 8.5	30	250	30	2100	-	10
Aeration Tank: MLSS – 3043 mg/l & MLVSS – 1449 mg/l							

All values are in mg/l except pH

- Analysis results of samples collected from outlet of ETP (sugar unit) & lagoon (sugar unit) indicates compliance w.r.t. stipulated discharge norms except pH – 8.7 & 8.8.

Compliance status: Partial non-compliance as pH (8.7 & 8.8) was found marginally exceeding the prescribed norm of 6.5-8.5 in treated effluent from ETP outlet & lagoon which require proper chemical dosing.

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<tr><td>17., 18., 19. & 20.</td><td>

Recommendation:

- The unit shall install air mixing system in Equalization Tank for proper homogenization of effluent.
- The unit shall relocate the oil and skimmer belt at appropriate place to collect the entire Oil & Grease content of the effluent.
- The unit shall ensure proper functioning of lime dosing system.
- The unit shall operate Primary Clarifier properly to avoid anaerobic condition in the tank.

Compliance submitted by project proponent: *Complied*

Factual status observed by CPCB team on recent visit:

- The unit has installed a perforated pipeline inside the equalization tank and connected it with a blower (capacity 170 m^3 /H.P) as an air mixing system. (Refer Photo 17)
- The unit has relocated the oil & grease skimmer equipment (Refer Photo 18)
- Since unit is non-operational, hence no trade effluent was being generated during visit, however wastewater is being generated from cleaning activities only within plant which was being treated in ETP.

Compliance status:Complying

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Recommendation:

- As per consent provided by UKPCB, unit has to install the sewage treatment plant (STP) in their premises for treatment of generated sewage. However, as per the joint inspection report dated 21.11.2023, no STP is installed by the unit thus

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violating the consent condition.

Compliance submitted by project proponent: *Complied*

Factual status observed by CPCB team of recent visit:

- Unit has installed 03 nos. of STPs of capacity 15 KLD each for treatment of sewage generated from residential dwellings in Officers colony, Gurudwara colony & New colony. All 03 nos. of STPs were found operational during visit.
  (Refer Photo 23 to 28)
- STPs receive wastewater from majorly two sources:
  i. Wastewater generated from kitchens, washrooms, etc. (except toilets)
  ii. Overflow of septic tanks provided for storage of wastewater generated from toilets
- The treatment scheme observed during visit is as below:
  Raw Sewage→ Screen chamber & Collection tank → MBBR tank (02 nos.) → Tube settler → Clear water tank → MGF → ACF → Outlet to gardening.
- Filter press has been installed for mechanical dewatering of raw sludge collected from the bottom of tube settler.
- Flow meters have been installed at outlet of all 03 nos. of STPs.

Samples were collected from inlet and outlet of all 03 nos. of STPs and analysis results are mentioned in table 5 below:

Table 5: Analysis results of samples collected from inlet & outlet of 03 nos. of STPs installed in residential colony of Sugar unit

Location	pH	BOD	COD	TSS	TDS	NO_3^-	SO_4^{2-}
STP – 1 (Officers colony)							
Inlet	7.7	25	94	24	908	BDL	94
Outlet	8.2	05	19	11	544	11	78
STP – 2 (Gurudwara colony)							
Inlet	7.5	11	33	22	380	BDL	63
Outlet	8.4	03	17	BDL	476	11	104
STP – 3 (New colony)							
Inlet	7.7	28	85	83	884	BDL	71
Outlet	7.4	12	67	BDL	296	BDL	45
Standards as per MoEF&CC notification dated 13.10.2017	6.5 – 9.0	30	-	100	-	-	-

- Analysis results of samples collected from outlet of all 03 nos. of STPs indicates compliance w.r.t. stipulated discharge norms.

Compliance status: Complying

22. **Recommendation:**

- The unit has not yet prepared a comprehensive irrigation management plan validated by SPCB/ Agricultural Universities for utilizing the treated effluent in irrigation as per notified treated irrigation protocol for sugar industries.

Compliance submitted by project proponent:

- *NSI visited unit on 09/ 10 April 2024 for assessment of irrigation management plan*

Factual status observed by CPCB team on recent visit:

- Unit has submitted irrigation management plan prepared by NSI, Kanpurdated9-10 April, 2024 The report stated that the unit has adequate land area for utilization of treated effluent generated @ 200litres/ton of cane crushed.

Copy of irrigation management plan is attached at **Annexure – 14**

Compliance status: Complying

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Recommendation:

- The unit shall maintain the proper record of ash disposal in low lying area. Logbooks were collected by the inspection team regarding Ash generation and disposal for duration 01.12.2024 – 30.04.2024. The details are as follows;

Months	Cane Crush (MT)	Bagasse Generation (MT)	Bagasse Consumption (MT)	Ash Generation (MT)	Ash at Bio-compost (MT)	Ash at Low Land RBNS Area(MT)
Total (Dec, 2023 to April , 2024	763985	209976	173973	1400	140.0	1252.2

Compliance submitted by project proponent: *Complied*

Factual status observed by CPCB team on recent visit:

- The unit has maintained proper record of ash disposal and provided logbooks of the same.

(Refer Annexure – 15)

Compliance status:Complying

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<tr><td>24.</td><td>

Recommendation:

- Unit must ensure regular water sprinkling in and around the boiler and near bagasse storage area of the unit to minimize the dust dispersion in the ambient environment.

Compliance submitted by project proponent: *Complied*

Factual status observed by CPCB team on recent visit:

- The unit has covered the stored bagasse with HDPE sheets. Boiler was found non- operational, hence no ash generation.
- Unit has provided water sprinkling arrangement by installation of hydro-jets.

Compliance status:Complying

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</table>

6. The Tribunal had considered the report of the CPCB dated 22.07.2024 and also the subsequent reply of the respondents no. 7 and 8 dated 04.02.2025 and found anomaly in respect of the stand of the respondent no. 7 and 8 about the agreement executed with 98 farmers for supplying treated water for irrigation, whereas the unit was stated to be compliant with the ZLD norms. Another anomaly noted in that order was in respect of the efficiency of the working of the Sulphur recovery system.

7. The Tribunal in the proceedings stated 12.02.2025 had observed as under:-

"4. On perusal of the reply dated 04.02.2025 filed by Respondent no. 7 & 8, we find that at serial no. 8 in the chart therein it is stated that no effluents were discharged by the distillery. The unit has complied with Zero Liquid Discharge (ZLD) norms as per CPCB but, in paragraph 9 of the reply it is stated that fresh agreements have been executed with 98 farmers and the answering respondent is supplying treated water for irrigation to nearby agricultural land (total 102.22 hectares). Hence, Respondents No. 7 & 8 are required to explain if they are fully compliant with ZLD norms, from where they are supplying the treated water to the farmer and if the treated water is meeting the prescribed standard for irrigation. Respondents No. 7 & 8 are also required to disclose if the Sulphur Recovery System (SRS) has been installed and if yes, the efficacy of its working."

8. The respondents no. 7 and 8 have filed the fresh report dated 13.05.2025 clarifying the above position about two anomalies noted by the Tribunal as under:-

"4. It is humbly submitted that Respondents have two separate units in same premises i.e. Sugar unit and Distillery unit. Serial No. 8 in the chart refers to Distillery unit and Para 9 refers to Sugar Mill of reply. However it is pertinent to mention that;

A. Distillery unit followed ZLD norms and no treated water is discharged from distillery Unit.

B. Sugar Unit supplied excess treated water from the Sugar mill for irrigation of nearby agricultural lands and for which sugar unit agreements with farmers.

5. No Sulpher is generated in the units, NSI in its report dated 03.02.2025 inadvertently mentioned Sulpher instead of Sulphate hence Sulphate Removal System (SRS) already stands installed in the Sugar Mill. There is no question Sulpher Recovery System in Sugar Mill.

The correct report with words 'Sulphate' instead of 'Sulpher' is enclosed along with herewith and Maked as Annexure R/1."

9. Learned senior counsel appearing for respondents no. 7 and 8 has pointed out that the distillery unit is following the ZLD norm and no treated water is discharged from that unit, and the agreement for supply of treated water referred to in the proceedings dated 12.02.2025 relates to the sugar mill, which is discharging the treated water. He has further pointed out

that by mistake in the earlier report, Sulphur was mentioned, whereas the unit is generating Sulphate and has installed a Sulphate Recovery System.

10. CPCB has filed the fresh report dated 09.05.2025, disclosing the compliance status of respondents 7 and 8. The conclusion and recommendations of the CPCB in the latest report are as follows:-

"Table 1: Factual status w.r.t to the reply dated 04.02.2025 filed by Respondent No. 7 & 8 w.r.t. 24 recommendations mentioned in CPCB's report dated 22.07.2024

S. No. as per reply submitted by project proponent	**Recommendations made in the inspection reports dated 21.11.2023, 24.01.2024 & 22.07.2024, Compliance submitted by project proponent vide its reply dt. 04.02.2025, and factual status observed by CPCB team during visit on 25th March, 2025**
1.	**Recommendation** Provision of laying out a closed conduit pipe line at Laksar drain (which is currently flowing as open channel) starting from 500 meters upstream (u/s) to 500 meter downstream (d/s) of unit shall be made by the unit under supervision of UKPCB to rule out any possibility of discharge of treated/untreated effluent into drain. ***Compliance submitted by project proponent:*** • *Unit written letter dated 31.03.2024 to seek permission from Local body administration for installation of Conduit Pipe, however Local administration denied on 15.04.2024.* **Factual status observed by CPCB team on recent visit**: • Unit representative informed that this drain is in jurisdiction of Nagar Panchayat, Laksar, therefore the unit vide letter dated 31.03.2024 sought permission from district administration regarding construction/laying of closed conduit (pipe) over Laksar drain. • District administration (i.e. Nagar palika parishad) vide letter dated 15.04.2024 communicated to the unit that considering the fact that unit falls under flood prone area, construction/laying of closed conduit pipe is not advisable. Hence, the unit has not provided closed conduit pipe line at Laksar drain. Copy of unit's letter dated 31.03.2024 is attached as **Annexure – 6**. Copy of letter dated 15.04.2024 from District administration (i.e. Nagar palika parishad) is attached as **Annexure – 7.**

2., 4, 21

Recommendation:

- It shall be the responsibility of the unit to maintain the quality of Laksar drain at downstream of the unit in sync with the quality at upstream of the unit.
- Based on the analysis results, the quality of Laksar drain near Akhoda Kalan village (1.68 Kms*) shows Deteriorated Condition, therefore, the possibility of effluent mixing with sewage in drain cannot be ruled out.
- As per consent provided by UKPCB, unit has to install the sewage treatment plant (STP) in their premises for treatment of generated sewage. However, as per the joint inspection report dated 21.11.2023, no STP is installed by the unit thus violating the consent condition.

Compliance submitted by project proponent:

- *UKPCB is monitoring water quality of Laksar Drain regularly on monthly basis.*
- *The unit has installed 03 nos. of STPs having installed capacity of 15 KLD each, while the residential colony of unit generates 40 KLD only.*

Factual status observed by CPCB team on recent visit:

- To verify the quality of Laksar drain, the inspection team collected samples from the Laksar drain at different locations. Details are mentioned below in Table 14:

Table 2: Analysis results of samples collected from Laksar drain

Parameters	Laksar drain upstream of unit	Laksar drain downstream of unit	Laksar drain near Akhoda Kalan village (1.68 Kms downstream of unit)
pH	7.4	7	6.9
BOD (mg/l)	10	97	170
COD (mg/l)	36	196	299
TSS (mg/l)	47	17	102
TDS (mg/l)	472	408	552
NO^{3-} (mg/l)	4.6	BDL	BDL
SO_4^{2-} (mg/l)	81	51	309

- The analysis results of samples collected from drain at above mentioned locations indicate no industrial impact of sugar and distillery plant and reflect typical characteristics of sewage.

Sewage management within the industrial complex

- Unit has installed 03 nos. of STPs of capacity 15 KLD each for treatment of sewage generated from residential dwellings in Officers colony, Gurudwara colony & New colony. All 03 nos. of STPs were found operational during visit.

- STPs receive wastewater from majorly two sources:
  i. Wastewater generated from kitchens, washrooms, etc. (except toilets)

ii. Overflow of septic tanks provided for storage of wastewater generated from toilets

- The treatment scheme observed during visit is as below:
  Raw Sewage→ Screen chamber & Collection tank → MBBR tank (02 nos.) → Tube settler → Clear water tank → MGF → ACF → Outlet to gardening.
- Filter press has been installed for mechanical dewatering of raw sludge collected from the bottom of tube settler.
- Flow meters have been installed at inlet and outlet of all 03 nos. of STPs.
- Samples were collected from inlet and outlet of all 03 nos. of STPs and analysis results are mentioned in table 15 below:

Table 3: Analysis results of samples collected from inlet & outlet of 03 nos. of STPs installed in residential colony of Sugar unit

Location	pH	BOD	COD	TSS	TDS	NO_3^-	SO_4^{2-}
STP – 1 (Officers colony)							
Inlet	7	45	108	20	412	BDL	78
Outlet	6.7	02	26	BDL (<10)	1344	10.2	170
STP – 2 (Gurudwara colony)							
Inlet	7.2	39	120	37	412	5.6	66
Outlet	8	01	13	BDL (<10)	560	16.6	109
STP – 3 (New colony)							
Inlet	7.1	37	102	60	320	0.8	15
Outlet	8.1	BDL (≈ 1)	10	10	424	17.1	50
Standards as per MoEF&CC notification dated 13.10.2017	6.5 – 9.0	30	-	100	-	-	-

- Analysis results of samples collected from outlet of all 03 nos. of STPs indicates compliance w.r.t. stipulated discharge norms

<u>Compliance status:</u> Complying

3. **<u>Recommendation:</u>**

- The unit shall install flow meters at the abstraction points on both the bore wells of sugar and distillery unit.

<u>Compliance submitted by project proponent:</u> *Complied*

<u>Factual status observed by CPCB on recent visit:</u>

Borewell Location	Permitted no. of borewells as per NOC from CGWA	Actual no. of borewells installed	Flow meter installed (Yes/No)	Instantaneous reading (m^3/hr)	Totalizer reading (m^3)
Sugar unit	01	01	Yes	46.2	100651.54
Distillery unit	01	01	Yes	5.0	291657.43

Compliance status: **Complying**

5. 6. & 7

Recommendation:

- The unit had 3 lagoons of total capacity of 5222 m^3 which were found fully filled with raw spent wash/ bio-methanated spent wash having total solids percentage less than 17% even during monsoon season and as these lagoons are located adjacent to Laksar drain hence there is potential of spillage/ overflow/ discharge of spent wash in the Laksar drain. This is the violation of CPCB direction dated 07.12.2015.
- The unit shall consume the concentrate spent wash stored in lagoons of capacity 1925m^3 and 1375 m^3 in dryer in environmentally sound manner thereafter, unit shall dismantle 02 lagoons.
- The unit was storing Bio-methanated spent wash (BMSW)/ raw spent wash in lagoons with solid content <30%, which is in violation of CPCB direction dated 07.12.2015.

Compliance submitted by project proponent:

- *Recommendation no. 5 & 7 – complied*
- *Recommendation no. 6 – Lagoons are dismantled.*

Factual status observed by CPCB on recent visit:

- **As already submitted in the inspection report dated 22.07.2024, the unit has consumed the legacy spent wash through MEE & Dryers, and** the unit has filled/levelled 02 nos. of lagoons of capacity 1925 m^3 and 1375 m^3 (located adjacent to Laksar drain) with boiler ash.
- The unit is not storing concentrated spent wash as it is directly feeding it into dryers, hence the condition for maintaining solid content >30% in lagoons as stipulated under CPCB direction dated 07.12.2015 is not applicable.
- The unit has now having one settling tank of capacity 1925 m^3 which is dedicated for holding bio-methanated spent wash and subsequently feeding into MEE.
- No overflow/spillage/discharge of spent wash/effluent from distillery unit found in the Laksar drain.

Compliance status: **Complying**

8.

Recommendation:

- The unit is discharging its distillery effluent from bio-composting/lagoons and sugar effluent in to the Laksar drain, which is the violation to Zero Liquid Discharge (ZLD)/discharge condition resulting in high pollution level of BOD (626 mg/l) and COD (1638 mg/l) which is about 17% higher than the upstream water quality of the drain.

	Compliance submitted by project proponent: • *No effluents discharged by the distillery. Unit has complied with ZLD norms as per CPCB.* **Factual status observed by CPCB team on recent visit:** 1. No bio-composting activities were going on and the infrastructure such as covered shed (including truss structure) found dismantled. 2. Distillery unit is operating on ZLD in compliance with the consent condition and the details of ZLD scheme are mentioned at section 2.3.4 (Figure 1), furthermore the data collected for effluent management in distillery plant for duration 01.02.2025 – 25.03.2025, also reflects the same. Details mentioned at section 2.3.4 (Table 4). 3. As stipulated under the consent issued by UKPCB to the sugar unit (condition no. 6.B.a), the treated effluent shall be recycled to the maximum extent and remaining treated effluent after tertiary level treatment shall be used for irrigation purpose/disposal. - Unit is recycling 75.75 % of treated effluent, 21.67 % is used for irrigation and remaining (around 2.6 %) is disposed into laksar drain. 4. Samples were collected from ETP outlet and analysis results show pH – 7.6 (against the norm of 5.5 – 8.5); BOD – 02 mg/l (against the norm of 30 mg/l); COD – 16 mg/l (against the norm of 250 mg/l); TSS – BDL (against the norm of 30 mg/l); TDS – 668 mg/l (against the norm of 2100 mg/l); Oil & grease – BDL mg/l (against the norm of 10 mg/l). These results indicate compliance w.r.t. stipulated discharge norms 5. Samples were also collected from different locations at Laksar drain and the analysis result indicate no impact of industrial discharge (BOD in the range of 10 – 170 mg/l & COD in the range of 36 – 299 mg/l). Details of samples collected from laksar drain are mentioned above in table – 13. **Compliance status: Complying**
9., 10. & 11.	**Recommendation:** • In bio-compost yard, the covered shed was damaged and improper. Ready bio-compost was found stored in damaged covered shed. Also, the leachate collection drain and pits were not observed around the periphery of bio-compost yard for leachate management. Also, the unit had not constructed any boundary wall near the compost yard. This is the violation of CPCB bio-compositing SOP. • The unit shall dispose all the stored ready bio-compost and press mud in bio-compost yard by adapting appropriate scientific method under the supervision of UKPCB within two months and after that the unit shall clean the bio-compost area and shall submit photographic evidence to UKPCB. **Compliance submitted by project proponent:** *Complied* **Factual status observed by CPCB team on recent visit:** • No bio-composting activities were going on and the infrastructure such as covered shed (including truss structure) found dismantled. Thus there is no relevance of covered shed, leachate collection drain & pits and the applicability of SOP for bio-composting operations is also not relevant. • Unit has cleared the bio-composting area and no ready bio-compost was found stored. • Unit has constructed boundary wall near the bio-compost yard.

	Compliance status: **Complying**
12.	**Recommendation:** • The unit shall prepare adequacy and performance assessment report of ZLD scheme for molasses based distillery as unit has expanded its production capacity from 60 KLPD to 120 KLPD and has installed spray dryers as ZLD system. **Compliance submitted by project proponent:** • *NSI report on Sugar and distillery unit at operational session dated 03.02.2025, received on 04.02.2025* **Factual status observed by CPCB team on recent visit:** • The unit has provided a copy of report dated 03.02.2025 titled "Adequacy report for the effluent treatment plant of distillery plant" prepared by National Sugar Institute, Kanpur (NSI), for the expanded production capacity of 120 KLPD, wherein it has been concluded that the unit has adopted spray drying route to achieve ZLD through Bio-methanation followed by MEE followed by Spray dryer and Conventional CPU system for treatment and recycling of condensate and other low strength effluents. Copy of "Adequacy and performance assessment report of ZLD scheme for molasses based distillery" is attached as **Annexure – 8** **Compliance status:** **Complying**
13.	**Recommendation:** • The unit shall comply with the consent conditions issued by UKPCB and shall ensure that no fresh concentrated spent wash shall be disposed through bio-composting and entire spent wash shall be totally disposed through spray dryer. **Compliance submitted by project proponent:** *Complied* **Factual status observed by CPCB team on recent visit:** • As per the consent conditions, the unit has stopped bio-composting since 01.01.2024 and shifted to dryer technology for achieving ZLD. **Compliance status:** **Complying**
14.	**Recommendation:** • Analysis results of samples collected from Bore well (sugar unit), piezo well located within molasses based distillery plant and hand pump located outside of the unit showed high value of COD in the range of 6 to 33 mg/l, which indicate posing potential threat to ground water and need urgent attention towards improvement of housekeeping, prevention of seepage, spillage etc. • UKPCB shall carry out detailed assessment of groundwater quality including ground water sampling & analysis in and around the unit to ascertain the groundwater contamination, if any, and need for remediation. Depending on such study, detailed remedial action plan be also prepared and executed by UKPCB in time bound manner.

Compliance submitted by project proponent: Complied

Factual status observed by CPCB team on recent visit:

- The CPCB inspection team collected the groundwater samples from the Borewell (sugar unit) and analysis results are mentioned in table 16 below:

Table 4: Analysis results of samples collected from Borewell (Sugar unit

Parameters	Borewell (Sugar Unit)	BIS IS 10500:2012 (Permissible limit in absence of alternative source)
pH	7.85	6.5-8.5
Conductivity (µmho/cm)	258	-
TDS	150	2000
COD	BDL (<2)	-
Total Hardness	68	600
Chloride	08	1000
Phosphate	0.311	-
Fluoride	0.33	1.5
Colour (Hazen)	BDL (<5)	15
Sulphate	10	400
Nitrate	4.84	45
Total Alkalinity	124	600
Note: All values are in mg/l except pH, colour, and conductivity		

- Analysis results of samples collected from Borewell located in premises of sugar unit, the water quality parameters were found within the permissible limit as per BIS IS 10500:2012.
- The unit has sealed the piezowell (located near molasses tanks within distillery plant) with concrete to avoid the possibility of contamination of groundwater in piezowell due to seepage or spillage.
- Housekeeping found satisfactory.
- No seepage, spillage of effluent observed within and outside of premise.
- UKPCB has carried out assessment of groundwater quality including ground water sampling & analysis in and around the unit to ascertain the groundwater contamination, through a private agency namely M/s Noida Testing Laboratory during 16.08.2024 – 20.08.2024 (Refer UKPCB letter dated 27.09.2024 attached as **Annexure - 9**). Details are mentioned below:

Parameter	Sampling Locations				BIS IS10500:2012 (Permissible limit in absence of alternative source)
	Borewell -1 (Sugar unit)	Handpump at Pipli village, 03 km from the unit	Handpump at Sultanpur village, 05 km from the unit	Handpump at RBNS Kachhari	
Colour	BDL (<1.0)	BDL (<1.0)	BDL (<1.0)	BDL (<1.0)	15

Conductivity	1030	930	945	738	-
pH	7.23	7.15	7.10	7.18	6.5-8.5
TDS	450	480	460	443	2000
Total Alkalinity	180	140	170	136	600
Total hardness	170	180	180	176	600
Chloride	30	18	28	38	1000
Nitrate	4.50	5.20	4.20	2.20	45
Sulphate	38	24	25	20	400
Phosphate	BDL (<0.1)	BDL (<0.1)	BDL (<0.1)	BDL (<0.1)	-
Fluoride	0.22	0.18	0.15	0.14	1.5
COD	BDL (<4.0)	BDL (<4.0)	BDL (<4.0)	BDL (<4.0)	-

Remark:

Above analysis results indicate that the groundwater samples collected from different locations around the unit found within the permissible limit as per BIS IS 10500:2012, and do not indicate any contamination in groundwater in Laksar region around the unit.

Compliance status: Compliance

15. **Recommendation:**

- The unit should get evaluation of its Effluent Treatment Plant (ETP) for its performance from Expert Institute of Repute/Experts in the field.

Compliance submitted by project proponent: *Complied*

Factual status observed by CPCB team on recent visit:

- The unit has submitted "Report on validation of ETP performance" dated 03.02.2025 prepared by NSI, Kanpur for sugar plant, for the crushing season 2024 – 2025.
- Installed new MGF and ACF as per NSI recommendations, and same were found operational.

Copy of ETP validation report is attached at **Annexure – 10**.

Compliance status: Complying

16. **Recommendation:**

- The unit does not properly operate the effluent treatment plant installed in sugar unit as it was found NON COMPLIANT w.r.t. the notified discharge norms.

Compliance submitted by project proponent:

- *Complied with all the recommendations.*
- *As per NSI and UKPCB, ETP treated water reports as per prescribed norms. Therefore, ETP performance is up-to the mark.*

Factual status observed by CPCB team on recent visit:

- During visit, the sugar ETP was found operational, and the inspection team collected samples from ETP inlet, aeration tank, ETP outlet & lagoon (for sugar unit). Analysis results are mentioned in table 17 below:

Table 5: Analysis results of samples collected from inlet, outlet & aeration tank of ETP, and lagoon in the Sugar unit

Location	pH	BOD	COD	TSS	TDS	SO_4^{2-}	Oil & grease
ETP Inlet	5.2	880	1453	202	2820	470	-
ETP Outlet	7.6	02	16	BDL (<10)	668	326	BDL (<5)
Lagoon (Sugar unit)	7.9	06	24	BDL (<10)	852	257	-
Norms as per consent	5.5 – 8.5	30	250	30	2100	-	10
Aeration Tank: MLSS – 11160 mg/l & MLVSS – 5342 mg/l							

All values are in mg/l except pH

- Analysis results of samples collected from outlet of ETP (sugar unit) & lagoon (sugar unit) indicates compliance w.r.t. stipulated discharge norms.

Compliance status: **Complying**

17., 18., 19. & 20.

Recommendation:

- The unit shall install air mixing system in Equalization Tank for proper homogenization of effluent.
- The unit shall relocate the oil and skimmer belt at appropriate place to collect the entire Oil & Grease content of the effluent.
- The unit shall ensure proper functioning of lime dosing system.
- The unit shall operate Primary Clarifier properly to avoid anaerobic condition in the tank.

Compliance submitted by project proponent: *Complied*

	Factual status observed by CPCB team on recent visit: • The unit has installed a perforated pipeline inside the equalization tank and connected it with a blower (capacity 170 m^3/hr) as an air mixing system. • The unit has relocated the oil & grease skimmer equipment at the appropriate location at ETP inlet and same was found operational. • Lime dosing system (with proper mixing arrangement) has been installed at ETP inlet after oil & grease tank and same was found operational. • There was no anaerobic condition observed in the Primary clarifier as there was no foul smell emanating from it which indicates that Primary clarifier was being operated properly. **Compliance status: Complying**
22.	**Recommendation:** • The unit has not yet prepared a comprehensive irrigation management plan validated by SPCB/ Agricultural Universities for utilizing the treated effluent in irrigation as per notified treated irrigation protocol for sugar industries. **Compliance submitted by project proponent:** *Complied* **Factual status observed by CPCB team on recent visit:** • Unit has submitted irrigation management plan prepared by NSI, Kanpur dated 9-10 April, 2024 The report stated that the unit has adequate land area for utilization of treated effluent generated @ 200 litres/ton of cane crushed. Copy of irrigation management plan is attached at **Annexure – 11** **Compliance status: Complying**
23.	**Recommendation:** • The unit shall maintain the proper record of ash disposal in low lying area. **Compliance submitted by project proponent:** *Complied* **Factual status observed by CPCB team on recent visit:** • The unit has maintained proper record of ash disposal and provided logbooks of the same. **(Refer Annexure – 12)** • Logbooks were collected by the inspection team regarding Ash generation and disposal for duration 01.02.2025 – 30.04.2024. The details are as follows:

Months	Bagasse Consumption (MT)	Ash Generation (MT)	Ash Disposal at Low land RBNS area (MT)
Feb – 2025	53126.3	919.37	As per data provided by the unit, it has disposed entire quantity of boiler ash
March – 2025 (upto 25th)	46265.7	804.93	
Total	99392	1724.3	

				into its low lying land area.

Compliance status: **Complying**

24.	**Recommendation:** • The unit must ensure regular water sprinkling in and around the boiler and near bagasse storage area of the unit to minimize the dust dispersion in the ambient environment. **Compliance submitted by project proponent:** *Complied* **Factual status observed by CPCB team on recent visit:** • Unit has installed manual water sprinklers around bagasse storage area and manual water sprinkling is carried out around the boiler area through tankers to ensure regular water sprinkling to minimize the dust dispersion in the ambient environment. **Compliance status:** **Complying**

STATUS OF OTHER RECOMMENDATIONS MADE IN CPCB's INSPECTION REPORT DATED 22.07.2024

RECOMMENDATIONS MADE IN CPCB's INSPECTION REPORT DATED 22.07.2024	**CURRENT STATUS**
1. Unit shall install flow meter with totalizer at the new Borewell (distillery unit) when it becomes functional and maintain logbook regarding groundwater withdrawal on daily basis.	Unit has installed flow meter with totalizer at the new Borewell (distillery unit) and maintained logbook regarding groundwater withdrawal on daily basis. Status: Complied
2. Unit shall clear up all the ready bio-compost stored in compost yard at the earliest and submit photographic evidence to CPCB & UKPCB.	Unit has cleared up all the ready bio-compost stored in compost yard. Status: Complied
3. The unit shall ensure proper functioning of chemical dosing system in effluent treatment plant of sugar unit.	The unit has ensured proper functioning of chemical dosing system in effluent treatment plant of sugar unit. Status: Complied
4. Unit shall submit the "Adequacy and performance assessment report of ZLD scheme for molasses based distillery",	Unit has provided the "Adequacy and performance assessment report of ZLD scheme for molasses based distillery",

clearly mentioning about the details of 02 nos. of dryers.	clearly mentioning about the details of 02 nos. of dryers. Status: Complied
5. Unit shall install flow meter with totalizer at the inlet line of all three STPs and maintain logbooks for quantity of sewage fed into STPs and treated sewage used in gardening.	Unit has installed flow meter with totalizer at the inlet line of all three STPs and maintained logbooks for quantity of sewage fed into STPs and treated sewage used in gardening. Status: Complied
6. Unit shall implement the recommendations made in ETP adequacy report prepared by NSI, Kanpur w.r.t installation of MGF & ACF prior to starting its operation.	Unit has implemented the recommendations made in ETP adequacy report prepared by NSI, Kanpur w.r.t installation of MGF & ACF prior to starting its operation. Status: Complied
7. UKPCB shall carry out detailed assessment of groundwater quality including ground water sampling & analysis in and around the unit to ascertain the groundwater contamination, if any, and need for remediation. Depending on such study, detailed remedial action plan be also prepared and executed by UKPCB in time bound manner. **Remark:** UKPCB has carried out assessment of groundwater quality including ground water sampling & analysis in and around the unit through a private agency namely M/s Noida Testing Laboratory during 16.08.2024 – 20.08.2024 (Refer Table 13, S. No. 14) **Status:** Complied	
8. State Revenue Department, Irrigation Department and SPCB may assess the possibility of laying of closed conduit pipe line on Laksar drain. In case not feasible, they may suggest alternative arrangement to rule out any possibility of discharge of partially treated/untreated effluent into drain.	No information received from State Revenue Department, Irrigation Department and SPCB

CONCLUSION

1. Distillery unit is operating on ZLD in compliance with the consent condition.

2. The sugar unit is complying with discharge norms stipulated under the consent issued by UKPCB.

3. The sugar unit is recycling 75.75 % of treated effluent, 21.67 % is used for irrigation and remaining (around 2.6 %) is disposed into laksar drain, which is in line with the consent issued by UKPCB to the sugar unit (condition no. 6.B.a) which states that the treated effluent shall be recycled to the maximum extent and remaining treated effluent after tertiary level treatment shall be used for irrigation purpose/ disposal.

4. UKPCB has carried out assessment of groundwater quality including ground water sampling & analysis in and around the unit to ascertain the groundwater contamination, through a private agency namely M/s Noida Testing Laboratory during 16.08.2024 – 20.08.2024. Analysis results indicate that the groundwater samples collected from different locations around the unit found within the permissible limit as per BIS IS 10500:2012, and do not indicate any contamination in groundwater in Laksar region around the unit.

5. Out of 24 recommendations made in CPCB's inspection report dated 22.07.2024; the unit has complied with 23 recommendations, and w.r.t. recommendation no. 1 i.e. laying of the closed conduit pipeline at Laksar drain, the unit has shown inability due to administrative reasons.

RECOMMENDATIONS

Project proponent shall ensure continuous compliance with the conditions mentioned in the Consolidated Consent & Authorization (CCA) issued by the UKPCB to its Sugar & Distillery unit."

11. The above report indicates that in substance the deficiencies which were pointed out by the Joint Committee have been complied with. The UKPCB and other regulatory bodies are required to carry out the regular inspection and ensure that the respondents no. 7 and 8 operate with full compliance with the environmental norms and to take action if any violation is found in this regard.

12. Learned counsel appearing for respondents no. 7 and 8 referring to the communication dated 15.04.2024 sent by the Nagar Palika Parishad, Laksar, Janpad Haridwar has submitted that the Nagar Palika Parishad is not permitting the applicant to put the conduit pipe or cover the drain.

13. Further issue has been raised by the applicant by filing I.A No. 97 of 2025 and I.A No. 387 of 2025 that respondents number 7 and 8 are burning the spent wash powder and are causing air and soil pollution and generating foul odour. In support of this allegation, the photographs have been placed on record.

14. The allegation has been denied by the respondents no. 7 and 8 but this needs to be enquired into by the CPCB by carrying out the spot inspection.

15. Hence, we dispose of the O.A by directing the CPCB and UKPCB to carry out the joint inspection of the area and asserting the correctness of the allegation about the burning of spent wash powder by the respondents no. 7 and 8. and also, examine the issue of installation of the incinerator boiler to protect the groundwater from pollution and its feasibility and requirement and if the allegation is found to be correct, take appropriate remedial and punitive action and submit the action taken report through email to Registrar General of this Tribunal within two months. If it is found to be necessary, the matter will be listed for consideration before the Bench.

Prakash Shrivastava, CP

Dr. Afroz Ahmad, EM

May 20, 2025
Original Application No. 530/2023
(IA NO 387/2025, IA NO 97/2025)
& connected matters
AB..

Annexure-II

File No. IA- J-11011/618/2010-IA II(I)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division
***

Indira Paryavaran Bhawan,
Jal Wing, 3rd Floor, Aliganj,
Jor Bagh Road, New Delhi-110 003

Dated:27th August,2021

To,

Shri. Satya pal singh,
Additional General Manager,
M/s. Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division),
Laksar village, Laksar tehsil,
Haridwar- 247663.

Sub: Expansion of Molasses Based Distillery from 60 KLPD to 120 KLPD by installation of new 60 KLPD Ethanol Plant at Village Laksar, Tehsil Laksar, District Haridwar, Uttarakhand by M/s. Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division)- Consideration of Environment Clearance.

Sir,

This has reference to your online proposal No. IA/UK/IND2/218585/2021, dated 14th July, 2021 for environmental clearance to the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the proposed project expansion of Molasses Based Distillery from 60 KLPD to 120 KLPD by installation of new 60 KLPD Ethanol Plant at Village Laksar, Tehsil Laksar, District Haridwar, Uttarakhand by M/s. Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division).

3. The project/activities are covered under category A of item 5 (g) 'Distilleries' of the Schedule to the EIA, 2006 and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC). The proposal has been submitted under the Ministry's EIA Notification, 2006 amendments vide Notification no. S.O. 345(E) dated 17th January 2019 & extension of notification S.O. 750(E) dated 17th February 2020, S.O 980(E) dated 2nd March, 2021. Accordingly, the proposal is appraised as category 'B2' project at Central Level by Expert Appraisal Committee (EAC).

4. Ministry had issued EC earlier vide letter no. J-11011/78/2005-IA-II (I) dated 24th May, 2006 to the existing operational project in favor of M/s Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division). It was informed that no litigation is pending against the proposal.

5. The details of products and capacity are as under: -

S. No.	Unit	Existing	Proposed Additional	Total after expansion	Remarks
1.	Distillery	60 KLPD (Ethanol /ENA/ RS)	New 60 KLPD Ethanol Plant	120 KLPD	Additional increased 60 KLPD capacity will be Ethanol only

6. Existing land area is 14.5 hectares (145000 m^2). The proposed expansion will be done within the existing plant premises so no additional land is required. Industry has already developed greenbelt in an area of 35% i.e. 5.0 ha (50000 m^2) out of total area of the project. The estimated project cost is Rs. 33.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 15.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.5 Crore per annum. Total Employment will be 56 persons as Permanent & 7 persons as temporary during operation phase after expansion. Industry proposes to allocate Rs. 66 Lakhs @2 % of total project cost towards Social developmental activities.

7. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc., within 10 km distance from the plant site. There is 1 Reserved Forest (RF) within 10 km radius namely Pathri Reserve Forest (3.0 km in NE direction). River i.e. Harwaha Nadi (1.0 km in West direction), Pathari Rao (1.5 km in NE direction), Pir Khala (2.5 km in NNE direction), Begam Nadi (4.0 km in ESE direction), Bodi Nadi (5.0 km in WSW direction), Solani River (5.0 km in West direction), Banganga River (5.5 km in SE direction), Pathawa Nadi (5.5 km in North direction) are flowing within 10 km radius.

8. Total fresh water requirement after expansion will be 474 KLPD which will be met from Groundwater and condensate water of their own Sugar Mill. Effluent of 886 KLPD quantity after expansion will be treated through state of art CPU (1050 KLPD Capacity) Treatment Plant (Anaerobic- UASB Reactor, Extended Aeration ASP, Clarifiers, Filters, & Chlorine chamber). The plant will be based on Zero Liquid discharge system.

9. Power requirement for distillery after expansion will be 3.0 MW including existing 1.5 MW and will be met from 30 MW Co-generation Power Plant in adjacent own Sugar Mill & D.G. Sets (for emergency). Sugar Mill Plant has one DG set of capacity 1010 KVA which is used as standby during power failure. Adequate Stack height (6 m) has been provided as per CPCB norms to the existing DG set. No additional DG set is proposed. Existing 70 & 90 TPH Bagasse & Biogas fired boilers are present in own adjacent Sugar Mill. A 30 TPH boiler is kept as standby in Sugar Mill campus for emergency operations which will be used as and when required for distillery operations. No additional boiler will be installed. Wet Scrubber with a stack height of 60 m is already installed in existing 70 & 90 TPH boilers for controlling the particulate emissions within the statutory limit.

10. Details of Process emissions generation and its management:

- Wet Scrubber with stack of adequate height (60 m) is already installed with the boilers to control the particulate and gaseous emissions as per CPCB guidelines. No new boiler is proposed.
- CO2 generated during the fermentation process sold to vendors.

- Online Continuous Emission Monitoring System has been installed with the existing stack and data transmitted to CPCB/SPCB servers.

11. Details of Solid waste/Hazardous waste generation and its management:

- Presently, Spent Wash generated during the process, is being first treated in Bio-Digester (Bio- Methanation) followed by Multi-effect evaporator and then used for Bio-composting. Bio-compost generated (9922 TPA) is sold to farmers.
- In proposed new Ethanol Plant, spent wash generated in the new Ethanol Plant will be treated in bio-digestor (bio-methanation) followed by Multi Effect Evaporator and concentrated spent wash will be dried in Spray Dryer and the powder will be used as potash rich manure (45 TPD).
- ETP Sludge is being/will be dried and given to farmers to be used as organic manure.
- Used oil (1 MT/Year) generated from the plant machinery/ gear boxes as hazardous waste is being/will be sold out to the CPCB authorized recycler.

12. Certified EC compliance Report has been obtained by Regional Office, MoEFCC, Dehradun vide F. No: NC-RO/UTR/IND-3/31/2006/2251 dated 08th February, 2021 wherein one non-compliance and two partial compliances were observed. PP has submitted ATR to IRO Dehradun.

13. As per OM dated 16th June, 2021, PP has submitted self-certification in the form of affidavit declaring that the proposed expansion of 60 KLPD will be for manufacturing of fuel ethanol only.

14. After detailed deliberations, EAC desired PP to submit ash disposal plan. PP submitted that there is no boiler in the distillery unit. The distillery unit is interlinked with adjacent own sugar mill and the requirement of power and steam is fulfilled from the sugar mill. The adjacent sugar mill has 3 boilers viz., 90 TPH, 70 TPH& 30 TPH (Standby) which are bagasse and biogas based. The ash generated from the sugar mill is being and will be given to the nearby brick manufacturing units. Ash disposal is being and will be done as per the guidelines of CPCB and SPCB.

15. The proposal was considered by the EAC in its 38th meeting held during 28th -29th July, 2021 in the Ministry, wherein the project proponent and their consultant M/s. J.M. EnviroNet Pvt. Ltd presented the EMP report as per the PFR. The Committee found the EMP report complying with the PFR and recommended the project for grant of environmental clearance.

16. The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

17. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of environmental clearance.

18. The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

19. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate Change hereby accords environmental clearance for to the proposed project expansion of Molasses Based Distillery from 60 KLPD to 120 KLPD by installation of new 60 KLPD Ethanol Plant at Village Laksar, Tehsil Laksar, District Haridwar, Uttarakhand by M/s. Rai Bahadur Narain Singh Sugar Mills Limited (Distillery Division), under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under: -

A. <u>Specific Conditions:</u>

(i) As per OM dated 16th June, 2021, project falls in category B2 and the proposed additional capacity of 60 KLPD shall be only be used for fuel ethanol manufacturing as per self-certification in form of an affidavit by the Project Proponent. Provided that subsequently if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

(ii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iii) The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises.

(iv) Total fresh water requirement after expansion will be 474 KLD which will be met from ground water. Prior permission shall be obtained from the concerned regulatory authority/Irrigation division in this regard, and renewed from time to time. No ground water recharge shall be permitted within the premises. Rainwater shall be collected in storage ponds and utilized for plant activities. Ground water monitoring

shall be done regularly and report is to be submitted to concerned authorities regularly.

(v) The spent wash generated shall be treated by bio-methanation followed by Multi Effect Evaporator and concentrated spent wash will be dried in Spray Dryer.

(vi) CO2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(vii) Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(viii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(ix) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.

(x) Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xi) The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xii) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within time as proposed.

(xiv) There shall be at least 20% parking space out of total area of plant site which shall be earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xv) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xvi) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xvii) A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

B. General Conditions:

(i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

(ii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iii) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(v) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

(vi) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(vii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

(viii) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

(ix) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

(x) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

(xi) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

20. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

21. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

22. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

23. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

24. This issues with the approval of the competent authority.

27.08.2021

(Ashok Kumar Pateshwary)
Director

Copy to: -

1. Principal Chief Conservator of Forest & HoFF, 85, Rajpur Road, Dehradun, Uttarakhand, India.
2. Deputy Director General of Forests (C), Ministry of Env., Forest and Climate Change, Integrated Regional Office, 25, Subhash Road, Dehradun - 248001
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
4. The Member Secretary, Uttarakhand Pollution Control Board, Gaura Devi Bhawan, 46 B IT Park Sahastradhara, Dehradun, Uttarakhand.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
6. The District Collector, Haridwar District, Uttarakhand.
7. Guard File/Monitoring File/Parivesh portal/Record File

27.08.2021

(Ashok Kumar Pateshwary)
Director
E-mail: ak.pateshwary@gov.in
Tel. No. 24695290

Annexure-III

HEAD OFFICE
Uttarakhand Pollution Control Board
"Gauradevi Paryavaran Bhawan"
46B, IT Park, Sahastradhara Road, Dehradun
E-mail : msukpcb@yahoo.com, Phone No.-0135-2607092

Letter No.: UKPCB/HO/Con-R-95/2024/ 823 Date: 27.08.2024

REGD. POST

To,

M/S Rai Bahadur Narayan Singh Sugar Mills Ltd.,
(Distillery Unit)
Laksar, Distt. Haridwar
(Uttarakhand)

Subject: **Consolidated Consent to Operate and Authorisation hereinafter referred to as the CCA (Consolidated Consent & Authorization) Renewal under Section- 25 of the "Water (Prevention & Control of Pollution) Act., 1974"and under Section- 21 of the "Air (Prevention & Control of Pollution) Act, 1981"and Authorization under "Rule - 6(2)"of the "Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016"notified under "Environment (Protection) Act, 1986"as applicable (to be referred hereinafter as Water Act, Air Act and HW Rules respectively).**

CAF ID: 9158	**Application No.** 5445375
CCA (Renewal)	**Date:-** 01.03.2024

Consolidated Consent and Authorization (CCA):

CCA is hereby granted to **M/S Rai Bahadur Narayan Singh Sugar Mills Ltd. (Distillery Unit)** located at Laksar, Distt. Haridwar (Uttarakhand) subject to the provisions of the **Water (Prevention and Control of Pollution) Act, 1974;** the **Air (Prevention and Control of Pollution) Act, 1981** and the **Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016** and the orders that may be made further and subject to following terms and conditions:

1. This CCA is granted for the period up to 31.03.2028, under Section-25 of the Water (Prevention & Control of Pollution) Act, 1974, as amended.
2. This CCA is granted for the period up to 31.03.2028, under Section-21 of the Air (Prevention & Control of Pollution) Act, 1981, as amended.
3. This CCA is granted for the period of 31.03.2028, under the Hazardous and Other Waste (Management & transboundary Movement) Rules, 2016 as amended.
4. **Production Capacity:**

S. No.	Declared by the industry		Permitted by Board	
	Raw Material/ Feedstock	Finished Product (KLD)	Raw Material/ Feedstock (M^3/Day)	Finished Product (KLD)
I.	C-Heavy/ B-Heavy Molasses- 372 M^3/Day	Ethanol/ENA/RS-60 KLD & Etanol-60 KLD	C-Heavy/ B-Heavy Molasses- 372 M^3/Day	Ethanol/ENA/RS-60 KLD & Etanol-60 KLD

5. **Production Process Infrastructure:**

S. no.	Declared by the unit				Permitted by the Board
	Number of fermenters	Capacity of fermenters (M^3	Type of fermentation technology adopted	Type of Distillation	
I.	07	400 M^3 each	Feed Batch	Molasses based	As declared by Unit.

Molasses storage infrastructures:

Declared by the unit			Permitted by SPCB
Capacity	No. of tanks	No. of lined pits*	
60000 Qtl. & 85000 Qtl.	02 Nos.	NA	60000 Qtl. & 85000 Qtl. (02 Nos.)

*The unit shall not store molasses in *Kaccha/* unlined pits.

6. Water Conservation:

A. Fresh water Consumption

i. The unit shall obtain permission / NOC from State or Central Ground Water Authority for Groundwater abstraction and shall comply with the conditions mentioned in the NOC.

ii. Industry shall install separate sealed, calibrated Electro Magnetic Flow meters with flow totalizer at all water abstraction sources, utilization lines- process, domestic and boiler.

iii. The industry shall maintain duly signed logbook of fresh water consumption and utilization.

iv. The specific water consumption shall not exceed values mentioned below as per consented product type.

Category	Specific Water Consumption not to exceed
B-heavy / C-Heavy	8-10KL/KL of product
Cane syrup/ sugar cane juice	6-8KL/KL of product

	Declared by the Industry	Permitted by NOC issued by CGWA	CGWA conditions
No. of bore wells	01	01	To be complied.
Daily quantity of water to be abstracted (KLD)	250 KLD	500 KLD	

B. Effluent generation, treatment and disposal:

i. The quantity of maximum specific effluent generation shall be as specified below:

Category	Specific spent wash generation5, not to exceed
B-heavy / C-Heavy	6-8KL/KL of product
Cane syrup/ sugar cane juice	4-6KL/KL of product

ii. The quantity of maximum daily effluent generation & discharge should not be more than the following:

S.No.	Kind of Effluent	Maximum daily generation	Maximum daily discharge, (KLD)	Treatment Facility and Discharge point
1	Domestic	15 KLD		Septic Tank & Soak Pits.
2	Industrial (Spent wash)	720 M^3/Day	Zero Liquid Discharge (ZLD)	

iii. Arrangement should be made for collection of water used in process and domestic effluent separately in closed water supply system. It should be ensured that domestic effluent should not be discharged in the storm water drain.

iv. The domestic effluent should be treated in sewage treatment plant (STP) and it should be in conformity with the norms of treated effluent as stipulated in E.P. Rules, 1986 as amended.

v. The unit shall identify recipient drains/ rivulets and their u/s & d/s locations in consultation with SPCB for monthly monitoring by industry to ensure ZLD from distilleries within 30 days. The monitoring report shall be submitted to CPCB on monthly basis.

S.No.	Name of recipient drain/rivulets	Latitude	Longitude	Name of the recipient river
1.	u/s of Laksar drain	$28^0 44' 59''$N	$78^0 01' 40''$E	Banganga
2.	d/s of Laksar drain	$29^0 44' 36''$N	$78^0 01' 53''$E	Banganga

vi. The industry shall maintain Zero Liquid Discharge (ZLD). ZLD refers to installation of facilities and system which will enable industrial effluent (all streams) for absolute recycling of or re-use in to industrial processes and converting solute (dissolved organic and in-organic compounds / salts) into residue in solid form by adopting method such as concentration/ evaporation/drying. ZLD will be recognized and certified based on two broad parameters that is, water consumption versus waste water reused or recycled (permeate) and correspondingly solids recovered (percent total dissolved / suspended solids in effluents).

C. Effluent Management Infrastructure:

Bio-digester				
S.no.	**No. of digesters**	**Designed Capacity (m3)**	**Sludge generation from digester**	**Method of disposal/ utilization of sludge**
1.	03	10000 x 02 nos. 7500 x 01 nos.	--	Spray Dryers

Multi Effect Evaporator (MEE)				
S.No.	**Nos. of MEE**	**Design Capacity (m3)**	**Type of technology of MEE (stages)**	**Mass flow meter installed at inlet and outlet of MEE**
1.	02 Nos.	5028 Sq. Meter	Multi-Effect Evaporation	Yes.

Condensate Polishing Unit (CPU): ****For treatment of MEE condensate and other low-strength effluent**					
S.No.	**Design Capacity (m3)**	**Type of technology of CPU**	**Sources of effluent coming into CPU with Quantity**	**Quantity of treated effluent from CPU and its utilization**	**Quantity of CPU sludge & its disposal mechanism**
1.	1050	USAB	Condensate of MEE	485 KLD Reused in cooling and processes.	Sludge Drying Bed. To be used as manure.

Reverse Osmosis (RO) system				
S.No.	**Design Capacity (m3)**	**No. of stages**	**Quantity of RO permeate (m3) & purpose of utilization**	**Quantity of RO reject (m3) & disposal mechanism**

i. All process and non-process effluents such as Spent lees, Process condensates, Boiler RO reject, CT blowdown, Softener/DM plant backwash, Pump gland cooling water etc. should be treated through CPU and recycled back in the process.

ii. The unit shall install mass flowmeters with totalizers at inlet and outlet of Multi Effect Evaporator (MEE) (concentrate) and shall connect the same with CPCB and Uttarakhand Pollution Control Board's servers.

iii. The unit shall install electromagnetic flowmeters with totalizer at CPU inlet & outlet and at water recirculation points like make up water for cooling towers & in process. The unit shall have separate energy meter for ETP/CPU and maintain the duly signed logbook of the same.

iv. The unit shall maintain duly signed logbooks of spent wash generation, MEE feed, MEE condensate, MEE concentrate, CPU inlet & outlet, cooling tower make up water and treated effluent reused in process.

v. The unit shall ensure proper marking/and colour coding of all the pipelines carrying industrial effluent accordingly.

Distilleries opting for Spray Dryer;

i. Minimum Solid % in feed for dryer shall be 40-45%.

ii. Maximum storage of Bio-methanated spent wash utilized in dryer shall strictly be restricted to seven days (07) equivalent of concentrated Bio-methanated spent wash generated. Excess storage facilities beyond this shall be levelled and dismantled.

iii. Unit shall dispose the spent wash through Bio-methanation followed by MEE and concentrated spent wash will be dried through Spray Dryers- 02 Nos. and the powder will be used as Potash Rich manure (45 TPD each Dryer).

iv. The unit shall collect powder produced from dryer in common silo and should be disposed of as fertilizer.

D. Domestic sewage

i. The domestic effluent should be treated separately in sewage treatment plant/ soak pit so that it should be in conformity with the following norms.
Trade effluent and domestic sewage shall be treated separately and also to be monitored for compliance w.r.t. notified norms separately. However, Single outlet can be provided after mixing for outside disposal.

ii. Industry shall install the flow meter at STP inlet and outlet and maintain the daily logbook.

iii. Industry shall explore the possibility to recycle the treated used water shall be utilised in gardening, irrigation, industrial utility and toilet flushing to minimise the fresh water consumption up to 20 % per year.

7. Air pollution mitigation:

i. The industry shall use following fuel and install air pollution control devices (APCD) of adequate capacity to comply with the following;

S. No.	Equipment	Fuel used	Stack height (m)	Air Pollution Control Device (APCD)	Stack Emission standards
I.	Spray Dryer (45 TPD)	Bagasse-168 TPD	40	Individual Wet Scrubber	PM-150 mg/N M^3
II.	Spray Dryer (45 TPD)	Biogas-1500 M^3/day			

ii. The industry shall operate in a manner so that all emissions be emitted through designated chimney/stack only. Porthole, platform and stairs shall be provided as per prescribed guidelines for stack emission monitoring.

iii. The APCS will be maintained and operated in such a manner that emissions always conform to the standard laid down under the E.P Act 1986 as amended. The ash generated from the Boiler shall be disposed of properly in such a manner that not affect the environment adversely.

iv. The unit shall install Online Stack Emission Monitoring System (OEMS) for PM and ensure with its connectivity (24x7) to CPCB server and Uttarakhand Pollution Control Board's dashboard.

v. The unit shall submit manual stack emission monitoring report and ambient air quality report on quarterly basis during operation of the plant.

vi. Water shall be sprinkled on the roads and premises for suppression of road dust.

vii. The solid waste namely boiler ash shall be disposed of properly and ensure that there is no fugitive emission from their transportation, storage and handling.

viii. The industry shall provide ports in the chimney/stack and facilities such as ladder, platform etc. as per requirement for monitoring the air emissions and the same shall be open for inspection and use at all time) by the Board's staff, the chimney/stack attached to various sources of emission shall be designated by number such as S-1, S-2 etc. and these shall be painted/ displayed to facilitate identification.

8. Noise Pollution Mitigation:

i. Noise from the D.G. Set and other source(s) should be controlled by providing an acoustic enclosure as is required for meeting the ambient noise standards for night and day time as prescribed for respective areas/zones (Industrial and Commercial) which are as follows: -

Standards for Noise level in db.(A) L_{eq}			
Industrial Area		Commercial Area	
Day	Night	Day	Night
75	70	65	55

Day time: from 6.00 a.m. to 10.00 p.m., **Night time:** from 10.00 p.m. to 6.00 a.m.

ii. The industry shall take adequate measures to control of noise from its own source so as to comply with the standards as may be applicable.

iii. The industry shall provide acoustics enclosure on DG sets as per Environment (Protection) Rules, 1986.

9. Conditions under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016: -

Hazardous Waste Management:

i. Number of authorization and date of issue: As above.

ii. Reference of application (No. and date) : As above.

iii. The **Factory Manager of M/S Rai Bahadur Narayan Singh Sugar Mills Ltd.** is hereby granted an authorization for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated at Laksar, District Haridwar (Uttarakhand).

Details of Authorization

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity (ton/annum)
--NA--			

iv. The authorization shall be valid for a period of .....NA.....

v. The authorization is subject to the following general and specific conditions (Please specify any conditions that need to be imposed over and above general conditions, if any):

A. General conditions of authorization:

1. The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site-specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
6. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
7. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.

9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
11. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
12. An application for the renewal of an authorization shall be made as laid down under these Rules.
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.
15. The occupier shall strictly comply with condition of prior environmental clearance accorded by MoEF & CC vide letter File no. IA-J-110011/618/2010-IA II(I) dated 27-08-2021 and shall submit regular compliance of the same.
16. The occupier shall submit water Balance & material Balance within one month of start of operation and same shall be communicated in each season to the Board's offices.
17. The occupier shall strictly comply with provisions of Water Act, Air Act, E(P) Act & Rues mad thereunder and directions issued from time to time.

General Conditions

1. Environmental management system:
   i. Industry shall setup the environmental management cell including unit head, purchase/store manager, process operation head, ETP in charge to effectively monitoring of environmental compliance
   ii. Industry shall setup the environmental laboratory for testing of minimum wastewater quality parameters like pH, TSS, BOD, COD, MLSS and DO to effectively monitoring of ETP control parameters and ETP discharge norms.
2. The applicant shall get analyses the samples of effluent/emission/hazardous wastes at least once in a three month from the laboratory recognized by the MoEF&CC and shall report to the SPCB.
3. The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gases emission or sewage waste from the unit.
4. Treated waste water and domestic waste water shall be disposed jointly at one disposal point. The applicant shall provide discharge measurement equipment at final disposal point.
5. The applicant shall strictly comply with conditions of this CCA and submit compliance report of stipulated conditions with 30 days of receipt of this CCA. If, at any point of time, it is found that the industry is not complying with stipulated conditions or any further direction/instruction issued by the **Board**, legal action shall be initiated against the applicant.
6. The applicant shall maintain good housekeeping. All valves/pipes/sewer/drains etc. must be leak-proof.
7. The industry shall provide uninterrupted entry to this STP's/ETP's inlet and outlet points, Air Pollution Control equipment and stack for smooth sampling/monitoring of efficiency of pollution control measures.
8. The industry shall provide "Inspection Book" at the time of inspection to the Board's officials. Whenever due to any accident or other unforeseen act or event, such emission occurs or is apprehended to occur in excess of standards laid down, such information shall be reported to the Board's offices and all other concerned offices. In case of failure of pollution control equipment, the production process connected to it shall be stopped with immediate effect
9. In case of any damage to the agriculture productivity, human habitation etc. by the operation of industry, it shall be imperative to stop production in the industry with immediate effect and such information shall be reported to Board's offices. The industry shall be liable to pay compensation also in such cases as decided by the Competent Authority.
10. The applicant shall apply before the 60 days of expiry of CCA or any change in production types/production capacity/manufacturing process/capacity enhancement etc. or any change in effluent discharge point or emission point.
11. The **Board** reserves the right to revoke/add/modify any stipulated conditions issued along with CCA, as may be necessary.

12. Any unauthorized change in personnel, equipment as working condition as mentioned in the application by the person authorized shall constitute a breach of his authorization.
13. It is the duty of the authorized person to take prior permission of the **Board** to close down the facility.
14. The authorization is valid for temporary storage of Hazardous Waste within premises only.
15. It is duty of the authorized person to take prior permission of this Board to close and clean up the facility for treatment, storage and disposal of hazardous waste.
16. Industry shall submit the latest copy of Audit Balance sheet/C.A. Certificate (Fixed Assets + Current Assets-Current Liabilities) so that the Consent fee payable by the industry may be verified.
17. Generated hazardous waste shall be stored temporarily in the factory premises and disposed of through authorized TSDF after obtaining the authorization from the Board
18. Unit shall develop green belt as per the protocol of Central Pollution Control Board.
19. In case of non-compliance of CCA condition(s) Bank Guarantee No.00608IG160000010 submitted by the unit will be forfeited without further information.
20. The industry shall comply with the provisions of Environment (Protection) Amendment, Rules 2018 notified by MoEF&CC by Notification no 49 Dt. 25.01.2018, Environment (Protection) Act 1986, Water (Prevention and Control of Pollution) Act, 1974 as amended, Air (Prevention and Control of Pollution) Act, 1981 as amended, Plastic Waste Management Rule 2016, E-Waste (Management and Transboundary Movement) Rules 2016 (whichever is applicable).
21. If closure order is issued by CPCB or SPCB against the unit then CCA will remain suspended during the closure period. After ensuring the compliance and after revocation of the closure order, the CCA will automatically be effective from the date of issuance of the closure revocation/modification order with additional conditions mentioned in the closure revocation/modification order.

Dr. Parag Madhukar Dhakate
Member Secretary

Copy to:

Regional Officer, Uttarakhand Pollution Control Board, Regional Office, Roorkee (Haridwar) for information and compliance.

Member Secretary

Annexure-IV

Directorate of Agriculture
Dehradun, Uttarakhand
Krishi Bhawan, Nanda Ki Chowki, Premnagar, Dehradun
Govt. of Uttarakhand

Registration No. - UK-AGRI/94129/111892
Date of Issue:21-01-2025

CERTIFICATE OF MANUFACTURE IN RESPECT OF FERTILISER/BIOFERTILISER/ORGANIC FERTILISER/NON-EDIBLE DE-OILED CAKE

RAI BAHADUR NARAIN SINGH SUGAR MILLS LAKSAR, is hereby given the NOC for manufacture of the fertiliser/organic fertiliser/ biofertilizer/non-edible de-oiled cake specified below subject to the terms and conditions of this NOC and to the provisions of the Fertiliser (Control) Order, 1985.

Full particular of the fertiliser/organic fertiliser/ biofertilizer/non-edible de-oiled cake of Fertilsers	Full address of the premises where the mixture of fertiliser/organic fertiliser/biofertilizer/non-edible de-oiled cake of Fertilsers will be made
POTASH DRIVED FROM MOLASSES	Haridwar,Laksar,,LAKSAR

Date:21-01-2025

Signature Registering Authority
अपर कृषि निदेशक
उत्तराखण्ड

Terms and conditions of this certificate:

(1) The holder of this NOC shall display the original thereof in a conspicuous place open to the public in a part of the principal's premises in which business of making the fertiliser/organic fertiliser/ biofertilizer/non-edible de-oiled cake of Fertilsers is carried on and also a copy of such NOC in similar manner in every other premises in which that business is carried on. The required number of copies of the certificate shall be obtained on payment of the fees thereof.

(2) The holder of this certificate shall not keep in the premises in which he carries on the business of making fertiliser/organic fertiliser/ biofertilizer/non-edible de-oiled cake of Fertilsers in respect of which a NOC of registration has not been obtained under the Fertiliser (Control) Order, 1985.

(3) The holder of this NOC shall comply with the provisions of the Fertiliser (Control) Order, 1985 and the notification, order and direction, issued thereunder for the time being in force

R.B.N.S. Sugar Mill Ltd (Distillery Division) Laksar Haridwar (2024-25)												
Month	Alcohol Production in BL	Raw Spent Wash Production (Kg)	MEE Inlet (Kg)	MEE Outlet (Kg)	Spray Dryer Inlet in (M3)	Spray dryer product opening Balance (Kg)	Spray Dryer Production (Kg)	To Granules (Kg)	Spray dryer product Sale (Kg)	Spray dryer product Balance Stock (Kg)	Granules Bags Production (Nos)	Granuls Bags Sales (Nos)
Nov-24	87996	551510	546750	165501	165.501	711591	63127	0	9880	764838	0	0
Dec-24	2955709	17669250	17672940	5274815	5274.622	764838	2028765	121000	2606020	66583	2420	0
Jan-25	2431144	14534180	14534429	4326795	4326.615	66583	1665914	873600	804632	54265	17472	3848
Feb-25	1942497	11612982	11613563	3447932	3447.929	54265	1324875	465350	872002	41788	9307	7405
Mar-25	1386665	8290299	8290457	2461253	2461.253	41788	941364	422200	488112	72840	8450	10883
Apr-25	1885172	11269715	11268995	3345730	3342.267	72840	1283076	408240	866994	80682	8099	8094
May-25	2092575	12745090	12745882	3796879	3791.144	80682	1461832	395620	87240	1059654	7900	9075
Jun-25	1389541	8985348	8985289	2669307	2667.307	1059654	1031925	274600	631478	1185501	5482	3646
Jul-25	1062127	6345813	6345750	1884662	1884.662	1185501	733482	56300	904132	958551	1121	4581
Aug-25	Plant Stopped					958551	Plant Stopped		105212	853339	0	850
Sep-25						853339			101318	752021	0	2736
Oct-25						752021			101766	650255	0	2950
Total	15233426	92004187	92004055	27372874	27361.3		10534360	3016910	7578786		60251	54068
											Balance Bags	6183 Bags

Pankaj Kumar
DGM (Distillery)
RBNS Sugar Mills Laksar

Annexure-4

ADEQUACY REPORT

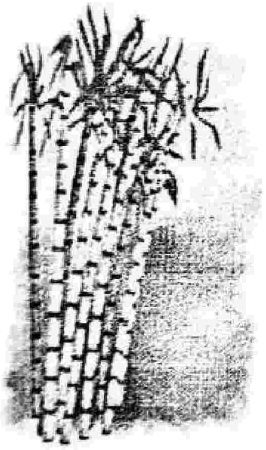
FOR

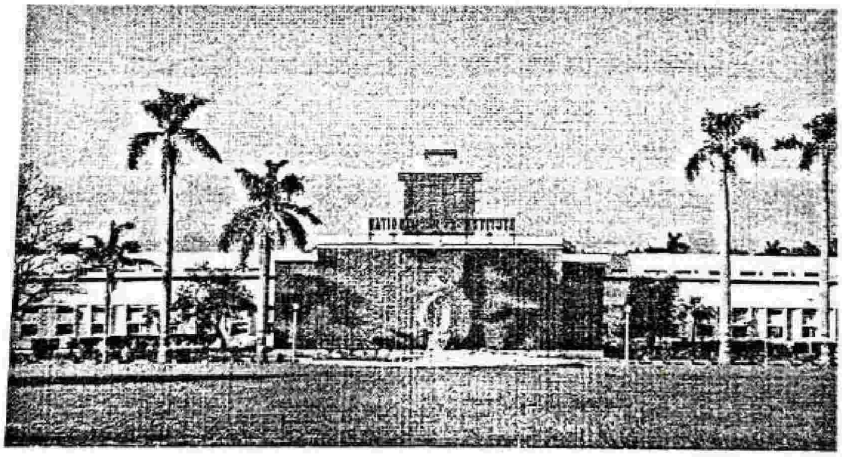
THE EFFLUENT TREATMENT PLANT OF DISTILLERY

OF

M/s RAI BAHADUR NARAIN SINGH SUGAR MILLS LTD.
(DISTILLERY DIVISION)
LAKSAR, HARIDWAR - 247663
UTTARAKHAND

PREPARED BY:





राष्ट्रीय शर्करा संस्थान

NATIONAL SUGAR INSTITUTE

भारत सरकार

Government of India

उपभोक्ता मामले खाद्य एवं सार्वजनिक वितरण, मंत्रालय

Ministry of Consumer Affairs, Food & Public Distribution

खाद्य एवं सार्वजनिक वितरण विभाग

Department of Food & Public Distribution

कानपुर-208017 (उत्तर प्रदेश) भारत

Kanpur- 208017 (U.P.) India

Ph. +91-512-2570730, 2570273

E-mail: *nsikanpur@nic.in*

1. INTRODUCTION

M/s Rai Bahadur Narain Singh Sugar Mills Ltd. (Distillery Division), Laksar, Haridwar vide letter no. GM/01/IC/370 dt. 26.12.2024 approached National Sugar Institute, Kanpur for inspecting their modified ETP being attached to 120 KLPD molasses-based distillery located in close proximity with 10,000 TCD sugar plant and to submit report on its adequacy keeping in view CPCB/ SPCB guidelines related to molasses-based distilleries. The factory proposes to operate the unit for 300 days following spray dryer route. Hence, the adequacy through spray dryer route has been assessed for 300 days of operation.

2. COMPOSITION OF THE TEAM

1. Dr. Seema Paroha, Director, NSI Kanpur
2. Shri Anoop Kumar Kanaujia, Asst. Professor (Sugar Engineering)

3. DATE /PERIOD OF VISIT

The visit was undertaken by the above officers on 04th January, 2025 to assess adequacy of the modified Effluent Treatment Plant of molasses-based distillery. The report is based on the data provided by the factory and physical verification made at site. During the period of visit the factory was found in operation and as such the inferences has been drawn on the basis of data made available by the factory.

4. FACTORY OFFICIAL PRESENT DURING THE VISIT

Shri S P Singh, General Manager and Shri Manish Rathi, D.G.M. (Distillery) of the unit along with their other technical staff were present during the visit for detailed discussion and physical verification of the site.

5. OBSERVATION AND DISCUSSIONS

The Molasses based distillery unit namely M/s Rai Bahadur Narain Singh Sugar Mills Ltd. (Distillery Division) is situated in Laksar, Haridwar, Uttarakhand adjacent to the Sugar unit of 10,000 TCD capacity which was established in the year 2014 and its present Licensed/ Installed capacity is 120 KLPD.

The consent issued by UKPCB, Environment Consent, and Excise/PD-2 are attached as **Annexure 1, 2, & 3** respectively. The factory has installed Bio-digester, Multiple Effect Evaporator system to concentrate the spent wash generated during the distillation process and being dried into spray dryer to achieve Zero Liquid Discharge (ZLD).

Performance of the distillery unit as reported by the unit for the last three Alcohol years:

Sl. No	Particulars	2021-22 (December to November)	2022-23 (December to November)	2023-24 (December to November)
1	Installed Capacity in KLPD	60	120	120
2	Production in KL/ Annum	C-Heavy- 410.55 B-Heavy- 15259.88	B-Heavy- 16315.19 Syrup- 6904.74	C-Heavy- 806.87 B-Heavy- 13606.40
3	**Products Manufactured KL/ Annum**			
	Rectified Spirit	15.42	0	0
	Extra Neutral Alcohol	1476.45	763.93	1189.29
	Absolute Alcohol/Fuel Ethanol	14206.63	22500.96	13250.03
4	Type of Raw Material consumed	C-Heavy/ B-Heavy	Syrup/ B-Heavy	C-Heavy/ B-Heavy
5	Raw Material consumed MT/Annum	1951.57 (C-Heavy) 51805.5 (B-Heavy)	22341.50 (Syrup) 55034.1(B-Heavy)	3491.12 (C-Heavy) 46794.2 (B-Heavy)
6	No. of operating days	270.46	213.63	143.46
7	Alcohol % in wash	C-Hy- 9.57 B-Hy- 11.93	B-Hy- 12.04 Syrup- 13.34	C-Hy- 8.82 B-Hy- 11.26
8	Alcohol yield lit/qtl	C-Hy- 21.04 B-Hy- 29.46	B-Hy- 29.65 Syrup- 30.91	C-Hy- 23.11 B-Hy- 29.08
9	Spent wash generation, l/l	C-Hy- 8.0 B-Hy- 6.0	B-Hy- 5.98 Syrup- 5.80	C-Hy- 7.97 B-Hy- 5.95

The last three months data duly certified with Excise Department regarding performance of distillery is as under:

Month	Month wise Alcohol Production (in B.L.)	Working Days	Avg. Alcohol production per day in KL	Molasses Distilled (in Qtls.)	Recovery In BL/Qtls.
Feb-24	B-Hy: 2712363.3 C-Hy: 179851.8 Total-2892215.1	26 03 29	104.32 59.95 99.73	B-Hy: 91696 C-Hy:7764 Total-99460	29.58 23.16 29.08
Mar-24	B-Hy: 2533418.3 C-Hy: 299477.5 Total-2832895.8	26 05 31	97.44 59.90 91.38	B-Hy: 85403 C-Hy:12921 Total-98324	29.66 23.18 28.81
Dec-24	2955708.8	31	95.35	B-Hy- 101659	29.07
Total	**8680819.7**	**91**	**95.39**	**299443**	**28.99**

Production data duly certified with Excise Department of last three months attached as **Annexure 4 (Copy of Form PD-9/ PD-29).**

6. PROCESS ADOPTED FOR ALCOHOLPRODUCTION

The factory uses fed batch fermentation, MPR distillation system for production of Rectified Spirit (RS)/ ENA and Ethanol. The factory has installed Bio-digester, Multiple Effect Evaporator system to concentrate the spent wash generated during the distillation process and being dried into spray dryer to achieve Zero Liquid Discharge (ZLD). C-Heavy Molasses/ B-Heavy Molasses/ Syrup is being used as raw material for producing RS, ENA and Ethanol which is obtained from own sugar factory or procured from other sugar factories.

The main processes for the production of RS, ENA and Ethanol at the unit are:

a) Fermentation (Fed batch)
b) Distillation (MPR)
c) Molecular Sieve Dehydration (MSDH)
d) Bio-Digester
e) Multiple Effect Evaporator (MEE)
f) Spray Dryer
g) Condensate Polishing Unit (CPU)

The various sections involved in the process for manufacture of RS, ENA and Ethanol are:

i. Molasses Storage and Handling Section
ii. Fermentation Section
iii. Distillation Section
iv. Molecular Sieve Dehydration

v. Bio-Methanation/ Bio-Digester Section
vi. Multiple Effect Evaporator Section
vii. Spray Dryer
viii. Process Water Treatment Section

(i) Molasses Storage, Handling and Distribution:

Molasses is stored in two steel tanks at the distillery having storage capacity of 60000 Qtls. and 80000 Qtls. Stored molasses in the molasses storage tank is pumped to the molasses receiving tank in the fermentation section.

(ii) Molasses Fermentation:

The fermentation consists of following steps;

a. Molasses weighing
b. Yeast Propagation
c. Pre fermentation
d. Fermentation

a. **Molasses Weighing** - Molasses is transferred into fermentation house after weighment. This molasses is diluted in diluter as per feed requirement like feed to Pre-fermentation/ Fermentation stages.

b. **Yeast Propagation**- Culture yeast is grown in own laboratory. Yeast propagation section comprises of molasses diluter and hygienically engineered yeast vessels equipped with cooling and air sparging facility.

c. **Pre-Fermentation**- In Pre-Fermenter vessel, molasses, process water, nutrients and additives are added for activation/growth of cell mass. Filtered air is given as required for cell growth. Activated cell mass is transferred to Fermenter to maintain desired cell mass concentration in Fermenter. Laboratory propagated cell mass is scaled up in series of yeast vessels. Cell mass from Yeast vessel is transferred to yeast activation vessel to build up cell mass required for Fermentation by cell mass transfer pump.

d. **Fermentation** -The fermentation process is engineered to operate in fed-batch mode depending upon varying qualities of molasses. The purpose of fermentation is to convert the fermentable sugars into alcohol. During fermentation, sugars are broken down into alcohol and carbon–di–oxide. Significant heat release takes place during fermentation. The fermenter temperature is maintained by cooling the fermented wash by forced circulation in plate heat exchangers. The cooling water used in plate type heat exchanged is cooled by circulating through cooling tower. Around 63 m^3 spent lees from MPR distillation produced in the process is re-cycled and used for dilution during fermentation process. There is also a provision for spent wash recycle to fermentation depending on solid concentration in fermented wash and molasses composition.

Type: Molasses based Fed Batch Type Fermentation
Nos. of Fermenter: Total 07 Nos. of Fermenters, Total Capacity – 28 Lac liters, 01 no. Wash Holding/ Intermediate tank for uninterrupted wash feed to Distillation Plant.
Yeast Vessels: 01 series of 04 vessels in each and of Capacity 100, 520, 2600 and 13000 Liters.
Unit has also installed Fermenters sludge settling system consists of 02 Nos. settling tanks having a capacity of 20000 liters each.

(iii) Distillation

The next stage in the production of alcohol is to separate alcohol from fermented wash and to concentrate it for final Product. The fermented wash is distilled and rectified. The following equipments are used.

1. Degasifying Column
2. Analyzer Column
3. Pre-Rectification Column
4. R.S. Recovery Column
5. Ethanol Recovery Column
6. Molecular Sieve Bed (03 nos.)
7. Purifier Column
8. Rectifier cum Exhaust Column
9. ENA Simmering Column

Pre-heated Fermented wash is fed to Degasifying Column. Fermented wash is stripped off alcohol by a small quantity of Steam is feed in degasifying column. Vapors of Degasifying Column are fed to Aldehyde column and appropriate technical alcohol cut is taken out from this Column. The Degasifying column bottom Liquid is pumped to analyzer Column for stripping of alcohol from fermented wash. Analyzer vapors from Top are fed to pre-rectifier column this column further concentrates alcohol to @ 95 % v/v and also separates low boiling impurities from column top. The column operates under vacuum. Rectified spirit draw of 95% v/v is taken out from the upper trays of pre rectifier column and fed to RS simmering column which separate the light ends present in RS under high reflux and taken to storage section after passing it through a cooler.

Molecular Sieve Dehydration (MSDH):

Rectified Spirit (RS) fed into the top of the re-boiler and steam applied in bottom of re-boiler. The alcohol and water vapors pass through the super heater to maintain the out let temperature between 135-138°C. After that alcohol and water vapors goes to sieve bed where water vapors are absorbed by molecular sieve and alcohol vapors pass out. These vapors condensed in product condenser and cooled through cooler which is called absolute alcohol having alcohol concentration between 99.8 -99.9% v/v.

Heat integration and Energy input Points

- Analyzer column driven by vapour of analyzer re-boiler.
- Vapors from analyzer column sent to pre-rectifier column and trapped alcohol fed to purifier column with small qty of DM water. recovery column is again driven by small qty of steam for separation of fusel oil. MSDH section evaporator column is driven by steam during Ethanol production.

Supplier: M/s Naran Lala Pvt. Ltd., Gujrat
Nos. of Column: 08 Nos. for Wash to Ethanol and 07 Nos. Wash to ENA.
Type: Wash to RS and Wash to ENA are multi pressure fractional distillation.

Cooling Towers:
One No. for Fermentation- 750 M^3/hr Recirculation Rate
One No. for Distillation 1400 M^3/hr Recirculation Rate
One No. for MSDH- 350 M^3/hr Recirculation Rate
One No. for MEE Plant - 1500 M^3/hr Recirculation Rate

The plant process flow diagram is attached as **Annexure 5.**

7. EQUIPMENT INSTALLED FOR ACHIEVING ZERO LIQUID DISCHARGE (ZLD)

The factory has envisaged two stages of treatment for the spent wash to obtain Zero Liquid Discharge. The raw spent wash from the distillery is being taken in Bio-digester and then concentrated into Multiple Effect Evaporator (MEE) System. The concentrated spent wash from MEE is then being dried into spray dryer.

As per the data provided, the plant generates spent wash at the rate of about 6.0 lit/lit of Alcohol produced with a Brix of around 10.5-11.5. Average spent wash generated is about 720 KL/day on full plant capacity (Volume is measured by Mass Flow meter) which is fed into MEE. Copy of log book in respect to spent wash generated is attached as **Annexure 6.**

The characteristics of raw spent wash (on B-Hy molasses) produced are given below;

pH	4.5– 4.7
Specific gravity	1.02 - 1.03
Brix Content	10.5-11.5
Sludge v/v	08-10%
VFA	3000– 4000 mg/l
COD	120000 - 125000 mg/l

Spent Wash Generation Data – (February, March & December 2024)

Total spent wash generation Feb, March & Dec 2024 from Log book (KL)	51319.78
Total Alcohol production Feb, March & Dec 2024 from Excise data (KL)	8680.82
Spent wash generation KL/KL of Alcohol	5.9

i. Bio-Methanation Plant/ Bio-Digester

Three nos. CSTR type Bio-digesters were installed in year 2014 and 2022. The capacity of two bio-digesters is 10000 M^3 each and other one is 7500 M^3 and hydraulic retention time of bio-digesters is about 21 days. During idle days digesters are maintained by keeping some spent wash in storage pits and slow feeding into digesters is being carried out. Temperature of digesters is being maintained through PHE, by exchanging heat of spent wash with bio-digester re-circulation material. Generated sludge is being consumed as bio-manure. The initial and final COD/ BOD and Bio-gas production data is attached as **Annexure 7.**

ii. Multiple Effect Evaporator (MEE)

a. Multiple Effect Evaporator (MEE) – Old Plant of 60 KLPD

The factory has six-effect Multiple Effect Evaporator which comprises of 4 nos. (4W+0S) Falling Film Evaporator bodies and 2 nos. (2W+0S) Forced Circulation Evaporator bodies wherein the solid content of BMSW is increased up to 36-37% solids. The system is having one degasser and does not have any stand-by body. MEE is designed for feed capacity of 750 KLPD.

The first and second body of the evaporator is driven by steam at suitable temperature and pressure. The third effect is driven through the vapour from the first and second effect and consequently the fourth effect is driven through the vapour from the third effect and so on up to sixth effect. The configuration of old MEE set is attached as **Annexure 8.**

Designed Technical Specifications of 6 Stage- Old Multi Effect Evaporator (MEE)

S.No.	Particulars	Type	HTA (M^2)	OD of tubes (mm)	Length of tubes (mm)	Thickness of tubes (mm)	Thickness of shell (mm)
1	Falling Film Evaporator- 1	Falling Film	250	50.8	12000	1.2	4
2	Falling Film	Falling	250	50.8	12000	1.2	5

	Evaporator- 2	Film					
3	Falling Film Evaporator- 3	Falling Film	250	50.8	12000	1.2	5
4	Falling Film Evaporator- 4	Falling Film	250	50.8	12000	1.2	5
5	Forced Circulation Evaporator- 1	Forced Circulation	264	38.1	9000	1.6	5
6	Forced Circulation Evaporator- 2	Forced Circulation	264	38.1	9000	1.6	5
7	Surface Condenser		220	50.8	12000	1.2	5

The MEE is designed for feed rate @ 750 m^3/day to concentrate the spent wash at about 180 m^3/day with solid content 36-37%. Copy of log book in respect to MEE performance is attached as **Annexure 9.**

b. Multiple Effect Evaporator (MEE) – New Plant of 60 KLPD

The factory has two-effect integrated Multiple Effect Evaporator which comprises of 3 nos. (2W+1S) Falling Film Evaporator bodies and three-effect standalone Multiple Effect Evaporator which comprises of 2 nos. (2W+0S) Falling Film Evaporator bodies and 2 nos. (1W+1S) Forced Circulation Evaporator bodies wherein the solid content of BMSW is increased up to 37-38% solids. The system is having one degasser and does not have any stand-by body. MEE is designed for feed capacity of 750 KLPD. The configuration of new MEE set is attached as **Annexure 10**.

Designed Technical Specifications of 3 Stage- Integrated Multi Effect Evaporator (MEE)

S.No.	Particulars	Type	HTA (M^2)	OD of tubes (mm)	Length of tubes (mm)	Thickness of tubes (mm)	Thickness of shell (mm)
1	Falling Film Evaporator- 1	Falling Film	410	50.8	12000	1.2	4
2	Falling Film Evaporator- 2	Falling Film	410	50.8	12000	1.2	5
3	Falling Film Evaporator- 3	Falling Film	300	50.8	12000	1.2	5
4	Surface Condenser		185	50.8	12000	1.2	5

Designed Technical Specifications of 4 Stage- Standalone Multi Effect Evaporator (MEE)

S.No.	Particulars	Type	HTA (M^2)	OD of tubes (mm)	Length of tubes (mm)	Thickness of tubes (mm)	Thickness of shell (mm)
1	Falling Film Evaporator- 1	Falling Film	450	50.8	9000	1.2	4
2	Falling Film Evaporator- 2	Falling Film	450	50.8	9000	1.2	5
3	Forced Circulation Evaporator- 1	Forced Circulation	650	38.1	9000	1.6	5
4	Forced Circulation Evaporator- 2	Forced Circulation	650	38.1	9000	1.6	5
5	Surface Condenser		275	50.8	12000	1.2	5

The MEE is designed for feed rate @ 750 m^3/day to concentrate the spent wash at about 180 m^3/day with solid content 37-38%. Copy of log book in respect to MEE performance is attached as **Annexure 11.**

iii. Spray Dryer

The Multiple Effect Evaporator system is followed by spray dryer system for attaining Zero Liquid Discharge (ZLD).

1	No. of Spray Dryers	02 nos.
2	Year of installation/ establishment & commissioning of Spray Dryer	2019-20 & 2021-22
3	Type of Spray Dryer	Rotating Disk Spray Dryer
4	Capacity of Spray Dryer	2 x 45 TPD
5	Design details	
	Feed rate of Concentrated Spent Wash	2 x 180 TPD
	Product manufacturing capacity	2 x 45 TPD
6	Spray Dryer Supplier details	M/s Raj Process Equipments & Systems Pvt. Ltd., Pune

7	Spray Dryer Performance details	
	Actual Slop used	178 TPD
	Quantity of product generated	68 TPD
	Characteristics of generated product	Potash Rich
	Method of disposal	Copy of sale invoices attached as **Annexure 12.**
	No. of working days per annum	300 days
8	Other Details	
	Shut down days-cleaning period required	-
	Hot air temperature Deg. Cent.	240°C
	Bio-gas required	1200 m^3/hr
9	Emission control system or Air Pollution Control Device (APCD) installed (Yes/No)	Yes
	Name of installed Emission control system/ APCD	Wet Scrubber
	Stack Height	40 Mtrs.
10	On-line emission (stack) monitoring system installed (Yes/No)	Yes
	Details of on-line emission (stack) monitoring system for boiler	Provided by M/s N.T. Bloomfield Enterprises, New Delhi
	On-line emission (stack) monitoring system connected to CPCB/SPCB server at time of inspection? (Yes/No)	Yes

Copy of log book records of spray dryer performance is attached as **Annexure 13.**

iv. Condensate Polishing Unit (CPU)

The conventional (Anaerobic/ Aeration/ MGF/ ACF) CPU was installed in year 2014 supplied by M/s M.M. Enviro Projects Pvt. Ltd. P& I diagram of CPU System is attached as **Annexure 14**.

Designed Characteristics of CPU:

Capacity	1050 KLD
Sources of effluent coming into CPU	MEE condensate Spent lees Cooling Tower Blow-down
Recovery %	90%
Quantity utilized per day %	100% of treated water is proposed to be used in molasses dilution/ cooling tower make-up water/ floor washings *etc.*

Copy of log book records of CPU performance is attached as **Annexure 15.**

8. ETP PLANT & MACHINERY DETAILS

S. No.	Description	Details
1	**Multi Effect Evaporator**	**a. Old MEE Plant** The six-effect MEE of capacity 750 M^3/ day is installed for concentrating bio-methanated spent wash. It consists of Falling Film type Evaporators (4W+0S) having 250 m^2 HSA each and Forced Circulation type Evaporators (2W+0S) having 264 m^2 HSA each. **b. New MEE Plant** The five-effect MEE of capacity 750 M^3/ day is installed for concentrating bio-methanated spent wash. The two-effect integrated MEE consists of Falling Film type Evaporators (2W+1S) having 410 m^2, 2x300 m^2 HSA. The three-effect standalone MEE consists of Falling Film type Evaporators (2W+0S) having 450 m^2 HSA each and Forced Circulation type Evaporators (1W+1S) having 650 m^2 HSA each.
2	**Bio-digester**	Three nos. CSTR type Bio-digesters of capacity 2x10000 M^3 and 1x7500 M^3 are provided for bio-methanation.
3	**Spray Dryer**	Two nos. Rotating Disk type Spray Dryer of capacity 45 TPD each are provided for drying concentrated bio-methanated spent wash

4	**Lagoon**	One no. of lagoon of total capacity 1925 m^3 is available for storage of concentrated spent wash.
5	**Condensate Polishing Unit (CPU)**	Conventional (Anaerobic/ Aeration/ MGF/ ACF) CPU of capacity 1050 KLD is provided for treatment of process condensate and other low strength effluents.

9. STEAM AND POWER GENERATION

The steam and power requirement for distillery are being met out through sugar mill boiler of capacity 30 TPH (32 kg/cm² and 400°C) integrated with back pressure type turbine of capacity 3 MW.

10. FRESH WATER MANAGEMENT SYSTEM

The raw water requirement of approximately 250-300 m^3/day for the plant is being met by one borewell located in sugar premises. The water balance of distillery as reported by the factory is attached as **Annexure 16**. The distillery has applied for the NOC for ground water abstraction from CGWA, which is enclosed as **Annexure 17**. The up-stream and down-stream water analysis reports are also attached as **Annexure 18.** Records of fermenter sludge generation and disposal is enclosed as **Annexure 19.**

11. OBSERVATIONS ON PHYSICAL PARAMETERS

S. No	Particulars	Actual in the unit
1.	Spent wash Generation l/l alcohol	About 6.0 litre/ litre of alcohol (three months average)
2.	Concentration of spent wash up to 36-38 % solids and spray dryer	Concentrated bio-methanated spent wash is being dried through spray dryers
3.	On line flow meters with data recording facility which should be transmitted online to CPCB and SPCB shall be installed at the raw spent wash/whole still age generation line, MEE feed and MEE concentrate	Online flow meters with data recording facility have been installed as per details at *para 12*.
4.	Cameras (IP) with PAN, Tilt zoom *etc.* to be installed at relevant locations of final spent wash lagoon storage/ concentrated spent wash storage tank	One no. camera is provided at Concentrated SW storage lagoon and MEE area as per details at *para 12* and are connected with CPCB and UKPCB servers.
5.	Boiler should have online continuous	Online SPM analyzer has been installed.

	stack emission monitoring system	
6.	Mass flow meters at the inlet and outlet of the MEE	Mass flow meter has been installed at the outlet of Distillation section. Mass flow meters have been provided at the feed and outlet of the MEE.
7.	ZLD system	The distillery has adopted spray drying route to achieve ZLD through Bio-methanation followed by MEE + Spray Dryer & Conventional CPU System for recycling of condensate and other low strength effluents.

12. ONLINE MONITORING SYSTEM

Details of Online PTZ Cameras & Flow Meters:

Location / Place Installed	Parameter monitored	Device Make & Serial No./ Device ID	Device Model	Device Vendor	System Certified	Certified Agency	Range
Lagoon and MEE area	PTZ Camera	Hikvision 103.66.74.213:83	DS-2DE7A225IW-AEB	Mozilla Firebox	NA	NA	NA
Spent Wash Generation	Mass flow meter	ABB	FCB430	Aaxis Nano Technologies Pvt. Ltd.	Yes	ABB	0-32000 Kg/Hr
MEE Feed-Old Plant	Mass flow meter	ABB 244367863/X002/00708	FCB430	Aaxis Nano Technologies Pvt. Ltd.	Yes	ABB	0-42850 kg/hr
MEE Concentrate-Old Plant	Mass flow meter	ABB 244327875/X002100708	FCB430	Aaxis Nano Technologies Pvt. Ltd.	Yes	ABB	0-21000 kg/hr
MEE Feed-New Plant	Mass flow meter	ABB X001/009479	FCB430	Aaxis Nano Technologies Pvt. Ltd.	Yes	ABB	0-35000 kg/hr
MEE Concentrate-New Plant	Mass flow meter	ABB X002/009480	FCB430	Aaxis Nano Technologies Pvt. Ltd.	Yes	ABB	0-26000 kg/hr

The photographs of MEE plant, CPU, Lagoon, Spray-dryer, Mass flow meters at the feed and outlet of MEE, PTZ cameras at Lagoon *etc.* are being attached as **Annexure 20**.

13. RECOMMENDATIONS & CONCLUSIONS

(i) M/s Rai Bahadur Narain Singh Sugar Mills Ltd. (Distillery Division), Laksar, Haridwar, Uttarakhand is having a molasses-based distillery of licensed capacity of 120 KLPD. The factory has adopted spray drying route to achieve ZLD through Bio-methanation followed by MEE + Spray Dryer & Conventional CPU System for recycling of condensate and other low strength effluents.

(ii) The factory has three nos. CSTR type Bio-digesters for bio-methanation. The bio-methanated spent wash is being sent to Multiple Effect Evaporator (MEE) system to concentrate upto 36-38 brix and then concentrated bio-methanated spent wash is being used in spray dryers so as to comply with CPCB norms to achieve Zero Liquid Discharge (ZLD) through spray drying route.

(iii) The factory has also provided the granulation unit along with the spray drying system to achieve ZLD. However, the unit may enter into formal agreement with other vendors/ growers for its safe disposal & utilization. The factory may also obtain the analysis report of spray dryer powder/ granules from the external agency.

(iv) The installed capacity of conventional Condensate Polishing Unit (CPU) system shall be sufficient to handle the MEE condensate & other low strength effluents (Spent lees and Cooling tower blow down *etc.*) at production capacity of 120 KLPD of RS/ENA/Ethanol. However, the factory may explore the possibilities to provide RO & UV system for better utilization of treated water of CPU, if required.

(v) Air Pollution Control (APC) system *i.e.* Wet Scrubber and OCEMS provided for emission control and monitoring system shall be sufficient to cope up with production capacity of 120 KLPD of RS/ENA/Ethanol.

(vi) The factory has provided the PTZ camera to cover the MEE/ lagoon area. The available PTZ camera(s) may be re-located from bio-compost yard to cover the area of spray drying of bio-methanated spent wash.

(vii) The factory has provided one no. of lagoon of total capacity 1925 m^3 for storage of concentrated spent wash.

(viii) The factory has provided necessary Mass flow meters with data recording facility for MEE feed and MEE concentrate and have been connected with the CPCB/ SPCB servers for transmitting data. The online stack monitoring system has also been commissioned and connected with the CPCB/ SPCB servers for transmitting data.

14. ACKNOWLEDGEMENTS

The undersigned is thankful to all the technical and other staff of the factory for extending necessary assistance during the period of investigation.

(Anoop Kumar Kanaujia)
Asst. Professor (Sugar Engineering)

NATIONAL SUGAR INSTITUTE
(Government of India)
Ministry of Consumer Affairs, Food & Public Distribution
Department of Food & Public Distribution
Kanpur- 208017 (U.P.) India

Annexure-6

कार्यालय नगर पालिका परिषद लकसर जनपद हरिद्वार।

पत्रांक- 17 /NGT/2024-25 दिनांक- 15-04-2024

सेवा में,

उपजिलाधिकारी,
लकसर।

विषयः-शुगर मिल लकसर के ड्रेन मिल परिसर में Condult Pipe लगाने के सम्बन्ध में।

महोदय,

उपरोक्त विषय आर0बी0एन0 शुगर मिल लकसर के पत्र सं0-जी0एम0/1560 दिनांक-31-03-2024 पर आपके आदेश के अनुपालन में अवगत कराना है कि मुख्य बाजार लकसर से सब्जी मण्डी होते हुये शुगर मिल क्षेत्र से निकलने वाले मुख्य नाले को शुगर मिल क्षेत्र मे कवर्ड किये जाने हेतु शुगर मिल लकसर द्वारा अनुमति चाही गई है।

उक्त के सम्बन्ध में अवगत कराना है कि लकसर बाढ़ग्रस्त क्षेत्र होने के कारण लकसर नगर मे प्रवेश करने वाले बाढ/बरसात के पानी की निकासी इसी मुख्य नाले से होती है। ऐसी दशा मे इस मुख्य नाले के अन्दर ह्यूम पाईप अथवा इसे कवर्ड किया जाना नगर हित में उचित प्रतीत नहीं होता है।

अतः आख्या सेवा में प्रेषित है।

भवदीय,

(कुलदीप सिंह चौहान)
अधिशासी अधिकारी
नगर पालिका परिषद लकसर-हरिद्वार

प्रतिलिपिः- प्रदन्धक आर0बी0एन0 शुगर मिल लकसर को सूचनार्थ प्रेषित।

अधिशासी अधिकारी
नगर पालिका परिषद लकसर
जनपद-हरिद्वार

O/C

15/4/24

15/4/24

NDOH: 10.11.2025

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Review Application No. 17/2025
In
Original Application No. 530/2023

IN THE MATTER OF:

Anuj Kumar .....APPLICANT

VERSUS

State of Uttarakhand & Ors. & ORS ..... RESPONDENTS

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FILED ON: 03.11.2025

FILED BY:

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U.O.No. 439 /XXXVI-A-3/Law Sec./2025-15(26)2025-Environment

BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH, NEW DELHI

ADVOCATES' WELFARE FUND STAMP ₹25 1520078 BAR COUNCIL OF DELHI DELHI पच्चीस रुपये TWENTYFIVE RUPEES

REVIEW APPLICATION No. 17 OF 2025
IN
ORIGINAL APPLICATION No. 530 OF 2023

Anuj Kumar — Appellant(s)

Versus

State of Uttarakhand & Ors. — Respondent(s)

VAKALATNAMA

I/We **State of Uttarakhand,** the Appellant(s)/Petitioners(s)/Respondent(s)/ intervener(s) of the above Appeal/Petition/ Reference do hereby appoint and retain **Sri Dhruv Tamta**, Advocate of the Supreme Court to act and appear for me/us in the above matter and to conduct or defend the same and to appear in all proceedings that may be taken in respect of any application connected with the same or any decree or order passed therein, including proceedings in taxation and application for Review, to file and obtain return of documents, to deposit and receive money on my/our behalf in said matter and to represent me/us and to take all necessary steps in the above matter. I/We agree, to ratify all acts done by the aforesaid Advocate in pursuance of the authority.

Dated this the 24 day of October, 2025.

ACCEPTED

Mr. Dhruv Tamta,
Panel Advocate,
331, M.C Shetalwad Block,
Supreme Court ,
New Delhi-110001
Mo.-9899989917
E-ID-tamtaadvocate@outlook.com

(Manish Kumar Pandey)
Addl.Secretary & Ex-Officio L.R.
Government of Uttarakhand
APPELLANTS/PETITIONERS/RESPONDENTS

(Manish Kumar Pandey)
Additional Secretary
Law-cum-Additional L.R.
Govt. of Uttarakhand

MEMO OF APPEARANCE

To,
The Registrar,
National Green Tribunal,
New Delhi.

Sir,
Please enter my appearance in the above mentioned case on behalf of the Petitioner(s)/ Respondent(s).

Yours faithfully,

(Dhruv Tamta)
Advocate for the
Petitioner(s) Respondent(s) Appellant(s)

DATE 03.11.2025

Outlook

Proof of Service in Review Application No. 17/2025 In Original Application No. 530/2023 Anuj Kumar VERSUS State of Uttarakhand & Ors.

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Date Thu 2025-11-06 13:03
To advprakashpande@gmail.com <advprakashpande@gmail.com>

1 attachment (26 MB)
Inspection report of the joint committee in compliance on behalf of State of Uttarkhand Copy.pdf;

To,
PRAKASH PANDEY
ADVOCATE FOR THE APPLICANT
E- MAIL - advprakashpande@gmail.com
Mo. 7805008055

Sub:- Review Application No. 17/2025 In Original Application No. 530/2023 Anuj Kumar VERSUS State of Uttarakhand & Ors.

Sir,

Please find attached copy of the Inspection report of the joint committee in compliance on behalf of State of Uttarakhand in above noted matter.

regards
Dhruv Tamta
Advocate
+91-9899989917

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