

Index

<b>S. No.</b>	<b>Particulars</b>	<b>Page No.</b>
1	Reply on behalf of Coordinating Agency	01-02
2	Report of Joint Committee in O.A No 1266 of 2024	03-14
3	<b>Annexure-1</b> Copy of the Hon'ble N.G.T. order dated 21.11.2024	15-16
4	<b>Annexure-II</b> Copy of Consent to operate under the Water Act-1974, the Air Act-1981 and Authorization under the Hazardous and Other Wastes (Management & Trans boundary Movement) Rules, 2016 from PPCB.	17-32
5	<b>Annexure-III</b> Copy of OCEMS calibration certificate.	33-34
6	<b>Annexure-IV</b> Copy of sample analysis report of Effluent Treatment Plant (ETP)	35
7	<b>Annexure-V</b> Copy of analysis report of boilers stack emission.	36
8	<b>Annexure-VI</b> , copy of analysis report of ground water samples.	37-38
9	<b>Annexure-VII</b> Geo-tagged photographs taken during visit on 07.01.2025.	39-41

**District Magistrate**  
**Hoshiarpur**  
**(Coordinating Agency)**

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, NEW DELHI

Original Application No. 1266 of 2024

Kulwinder Singh

..... Applicant

Versus

State of Punjab and Others

..... Respondent(s)

Submission of Joint Committee report in compliance to order dated 21.11.2024.

RESPECTFULLY SHOWETH

- 1) That briefly submitted that the Hon'ble National Green Tribunal has taken cognizance of the above-mentioned case on the basis of the complaint made by the applicant in respect of discharge of polluted effluent by Sugar Mill Mukerian, District Hoshiarpur causing water pollution in the nearby area and damaging the crops.
- 2) That after consideration of the matter, the Hon'ble Tribunal was pleased to pass an order dated 21.11.2024 thereby constituting a Joint Committee comprising of the representatives of the Member Secretary, Punjab Pollution Control Board, Central Pollution Control Board, Regional Office, Ministry of Environment, Forest and Climate Change, Chandigarh and District Magistrate, Hoshiarpur with direction to visit the site, ascertain the truthfulness of allegation, collect the samples from discharge of sugar mill and nearby water sources and get the samples analyzed comparing with standards and to submit report before the Tribunal.

- 3) That in compliance to order dated 21.11.2024, the Joint Committee comprising of Dr. K. Muthamizh Selvan, Scientist 'E', Integrated Regional Office, MoEF& CC, Chandigarh; Er. Jagdish Prasad Meena, Scientist 'D', CPCB Regional Directorate, Chandigarh (Member and Nodal Officer nominated by Member Secretary, CPCB) and Er. Deepak Chadha, Environmental Engineer, PPCB, R.O Hoshiarpur (Member nominated by Member Secretary, PPCB and by District Magistrate, Hoshiarpur) had visited the premises of M/s Indian Sucrose Limited on 07.01.2025 and collected the ground water samples from around the premises of the industry, ascertained the status of the unit under various control Laws.
- 4) The report of the Joint Committee in accordance with the mandate of the order dated 21.11.2024 is being submitted herewith for kind consideration and appropriate orders of this Hon'ble Tribunal.

Submitted by



District Magistrate,  
Hoshiarpur  
(Coordinating Agency)

BEFORE THE NATIONAL GREEN TRIBUNAL.  
PRINCIPAL BENCH, NEW DELHI

Original Application No. 1266 of 2024

**Report of the Joint Committee constituted in compliance to NGT order dated 21.11.2024 in O.A No. 1266 of 2024; Kulwinder Singh Vs State of Punjab & Others.**

**1.0 Background and the Directions of Hon'ble National Green Tribunal:**

The matter is related to a complaint made by Shri Kulwinder Singh resident of Chakalla Baksh, Ward No. 12, Tehsil Markarian, District Hoshiarpur, Punjab, registered as an original application by Hon'ble NGT, wherein it is alleged that discharge of polluted effluent by sugar mill Mukerian, causing water pollution in the nearby area and damaging the crops.

The Hon'ble National Green Tribunal, Principal Bench vide order dated 21.11.2024 (**Annexure-I**) has observed and directed as follows:

*Para05: Having regard to the nature of the grievance raised in the letter petition, we deem it proper to implead the following as respondents: Respondent no.1- Member Secretary, Punjab Pollution Control Board (PPCB); Respondent No.2- Regional Officer, MoEF&CC, Chandigarh; Respondent No.3- District Magistrate, Hoshiarpur, Punjab.*

*Para06: Having regard to the seriousness of the complaint, we also deem it proper to form a Joint Committee comprising the representative of the Member Secretary, PPCB, representative of Member Secretary CPCB, RO, MoEF&CC, Chandigarh and District Magistrate, Hoshiarpur who will act as the coordinating agency in the Joint Committee.*

**Para 07:** *The Joint Committee will visit the site, ascertain the truthfulness of the allegations made in the complaint, collect the samples from discharge of the sugar mill and nearby water sources and get the sample analysis done comparing compliance with standards stipulated in CTO and submit the report before the Tribunal.*

**2.0. Compliance of the orders of Hon'ble National Green Tribunal:**

**2.1. Constitution of the Joint Committee:**

In compliance to the Orders of Hon'ble NGT, a Joint Committee comprising of the following members was constituted:

- i. Dr. K. Muthamizh Selvan, Scientist 'E', Integrated Regional Office, MoEF& CC, Chandigarh.
- ii. Er. Jagdish Prasad Meena, Scientist 'D', CPCB Regional Directorate, Chandigarh (Member and Nodal Officer nominated by Member Secretary, CPCB).

*Jagdish Prasad Meena*

- iii. Er. Deepak Chadha, Environmental Engineer, PPCB, R.O Hoshiarpur (Member nominated by Member Secretary, PPCB and by District Magistrate, Hoshiarpur)

## 2.2. Site visits and interaction with the complainant:

The site visit was conducted by the Joint Committee on January 07, 2025. The complainant has raised the following issues in its complaint:

- Discharge of polluted effluent by Sugar mill, Mukerian, causing water pollution in the nearby area and damaging the crops.
- The applicant is an agriculturist, and he has alleged that he had dug bore wells for irrigation, but dirty water is coming out from the borewell.
- The groundwater of the entire area has been polluted, and such water pollution is affecting the fertility of the land and also the crops.

The joint committee visited the surrounding area of sugar mill and collected groundwater samples from tube wells to assess the impact of sugar mill industrial operations on ground water quality. Furthermore, the team inspected the sugar mill, M/s Indian Sucrose Limited, Tehsil Mukerian District Hoshiarpur Punjab, and collected effluent samples from the Effluent Treatment Plant (ETP) to verify compliance with notified norms. Additionally, the emission monitoring of the two boilers were also conducted to assess the emission standards.

## 3.0 Findings /Observations of the Joint Committee:

- The unit has consented capacity of 9000 Tonne Cane Crushed per day (TCD) for production of sugar using sugar cane as a raw material. During inspection, the unit was in operation with the present cane crushing capacity of 8900 TCD.
- The unit is meeting its fresh water requirement through two tube wells for industrial & domestic purpose. Electromagnetic Type flow meters were installed at tube wells for measuring the water consumption. Logbook of the fresh water consumption was maintained.
- The unit has obtained permission on 18.11.2021 for a period of 03 month from Punjab Water Regulation and Development Authority (PWRDA) for extraction of ground water. The permitted water quantity is (597 m<sup>3</sup>/day) 17910 m<sup>3</sup>/month. Further, as informed the unit has applied for renewal of the same to PWRDA. However, the unit does not have the valid permission for extracting the groundwater.

### ➤ Compliance Status under Water (Prevention & Control of Pollution) Act, 1974 :

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4. The unit has installed an Effluent Treatment Plant (ETP) of capacity 2500 m<sup>3</sup>/day which based on Activated Sludge Process (ASP). The ETP is comprised of Bar Screen > Oil & Grease Trap > Chemical Mixing Tank (Lime dosing) > Collection Tank > Aeration Tank-I (Diffused Aeration system) > Primary Clarifier > Aeration Tank-II > Secondary Clarifier (02 parallel No's) > Pressure Sand Filter > Activated Carbon Filter > Chlorine Contact Tank > Sludge drying Beds (10 Nos.)
5. As per log book records, the unit has started operation of aeration tank of ETP since 24.10.2024 to achieve the desired MLSS before starting of cane crushing season.
6. During inspection, the unit and its ETP was found in operation. Further, as reported by the unit representative, the unit has started cane crushing for the current cane crushing season (2024-25) from 01.12.2024.
7. The unit possesses valid consents valid upto 31/03/2025 under the water Act, 1974 and the Air Act, 1981 also Authorization valid upto 09/05/2027 under the Hazardous and other Wastes (Management and Trans-Boundary Movement) Rules, 2016 from PPCB.

The Copy of Consents and Authorization are enclosed as **Annexure-II**

8. According to the logbook records provided by the unit for two months (December 2024 and January 2025), the total fresh water drawn from tube wells, final treated effluent discharge and the quantity of cane crushed, also the duration of mill operations (62 days) are presented below.

Fresh water drawn from 02 tube wells (litres)	Total Duration of mills till date (Days)	Cane Crushing in 02 month (Tonnes)	Final Treated effluent (litres)	Fresh water Consumption (lit/tonne cane crushed)	Final waste water discharge (lit/tonne cane crushed)
35485000	62	513830	100079000	69	195

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9. It is evident from above analysis data indicates that the fresh water consumption in the standalone sugar mill is 69 liters per tonne of cane crushed. However, the final wastewater discharge is about 195 litres / Ton of cane crushed, which is complying with as notified discharge norms of 200 litres /Ton of cane crushed.
10. The unit has not provided flow measuring system at inlet of ETP for measuring quantity generation. However, only an Electromagnetic Type flow meter has been installed at final outlet of ETP for measuring the discharge.
11. The unit has installed Online Continuous Effluent Monitoring System (OCEMS) at final outlet for measuring consented parameters flow, pH, TSS, BOD, COD and its connected to CPCB /PPCB server.
12. Online Continuous Effluent Monitoring System (OCEMS) installed at final outlet was calibrated on Feb 27, 2024. The next calibration is due on May 26, 2024. The copy of OCEMS calibration certificate is enclosed as **Annexure-III**.
13. At the time of visit, it was observed that the instantaneous value of OCEMS were pH 7.03, TSS-70.8 mg/l, COD-172 mg/l & BOD-17.3 mg/l respectively.
14. The unit has not installed pressure gauge device at filtration system of ETP as well as STP to check the performance of filters and avoid chocking.
15. At the time of visit, Punjab Pollution Control Board (PPCB) collected the sample from inlet of ETP, Aeration Tank-I & II and final outlet of ETP in the presence of the Joint committee to verify the notified effluent norms. Analysis results of sample are presented below:

Sampling locations	Parameters								
	pH	TSS	COD	TDS	BOD	O&G	MLSS	MLVSS	SAR
Inlet of ETP	12.9	450	4560	6289	570	18.2	--	--	--
Aeration Tank-I	--	--	--		--	--	3150	2170	--
Aeration Tank-II	--	--	--		--	--	2760	1840	--
Final Outlet of ETP	7.9	56	196	1021	22	BDL	--	--	2.4
Notified standards for sugar Industry effluents vide	5.5-8.5	100	250	2100	100	10	--	--	--

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notification dated 14.01.2016 (on land discharge)									
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All values are in mg/l except pH, SAR

16. The analysis results of treated effluent sample collected from ETP outlet are complying with the standards notified in MoEF&CC Notification G.S.R. 35(E) dated 14th January, 2016. The copy of sample analysis report of ETP is enclosed as **Annexure-IV**.
17. The unit has installed separate energy meter for the ETP and records of the same were maintained.
18. The unit has installed a flow meter to measure spray pond overflow but has not provided a flow measuring device for excess condensate generation.
19. The unit has one impermeable lagoon with a 15-day holding capacity for storing treated effluent during periods of no irrigation demand.
20. As per consent condition, the ETP-treated effluent and STP treated effluent are being used onto land for in area of 29 Acres as per Karnal Technology, with in the premise of the unit.
21. The unit has installed Sewage treatment plant of 50 KLD capacity for treatment of colony domestic waste water. The STP is comprises of Screen Chamber > Collection chamber > Aeration Tank > Tube Settler > chlorine Contact cum Collection tank > sand Filter > Sludge Drying beds.
- **Compliance Status under Air (Prevention & Control of Pollution) Act, 1981 :**
22. The unit has installed four boilers with capacities of 200 TPH, 38 TPH × 2, and 80 TPH for producing steam and power using bagasse as fuel. As informed, at present, two boilers with capacities of 200 TPH and one 38 TPH are operational. However, the other two boilers, with capacities of 80 TPH and 38 TPH, are non-operational and used as standby. Additionally, the unit has installed a 40 MW cogeneration plant to

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generate power for its own requirements as well as to sell power to the State Electricity Board.

23. During the visit, the committee observed that the one boiler of 200 TPH and another boiler of 40 TPH were in operation. The boiler of 200 TPH capacity is equipped with an Electrostatic Static Precipitator (04 field ESP), and its emissions are vented into the atmosphere through a separate stack. Similarly, the 38 TPH boiler is equipped with a water scrubber, and its emissions are also vented into the atmosphere through a separate stack.
24. The unit has installed a Continuous Emission Monitoring System (CEMS) at the boiler stack of 200 TPH capacity for measuring Particulate Matter (PM). However, an online emission monitoring system has not been installed at the 38 TPH capacity boiler.
25. During inspection, stack monitoring of the boiler stacks were also carried out by the PPCB team. Boiler Stack emission analysis results is presented below:

Sampling locations	APCD	Stack height (in meters)	Analysed Parameter PM (mg/Nm <sup>3</sup> )	Prescribed Standard (mg/Nm <sup>3</sup> )
Boiler of capacity @200 TPH	ESP	78	112	150
Boiler of capacity @38TPH	Water Scrubber	40	48	150

26. It is evident from analysis results that stack emission are complying with standards notified in MoEF&CC Notification G.S.R. 35(E) dated 14th January, 2016. The Copy of analysis report of stack monitoring is attached as **Annexure-V**.

➤ **Compliance Status of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 :**

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27. At the time of visit, the committee observed that Press mud is being stored in an unscientific manner on land outside the unit premises, which is owned by the WAQF Board and taken on lease by the industry. Further as informed, the Press mud is taken by a private contractor for manure production.
28. As informed by unit representative that the ash generated from the boilers is taken by contractor for filling in low lying area. Further as informed, the used oil is sold to authorized recycler.

#### 4.0 Groundwater Sampling, Analysis and Interpretation:

29. During the site visit, the committee collected five groundwater samples from agricultural bore wells located upstream and downstream of the unit premises. The first groundwater sample was collected from an agricultural bore well situated 500 meters away from the sugar mill boundary. The second groundwater sample, considered a reference sample, was collected from a bore well which is located at about 600 meters away from the unit at upstream side. The third groundwater sample was collected from a bore well adjacent to the press mud storage area which is away 800m from sugar mill. The fourth groundwater sample was taken from a residential area bore well, located downstream of the sugar mill. The fifth groundwater sample was collected from a bore well situated downstream, approximately 300 meters from the sugar mill, to assess the impact on groundwater quality.

S. No.	Sampling Code	Description of Sampling Locations	Depth of ground Water Tube wells (As informed by representatives of Tube wells)	Geo-coordinates	
				Latitude	Longitude
1	284	From tube well of Kulwinder Singh Resident of Chackalla Baksh adjacent sugar mill near plantation area	120 ft	31.924862	75.629185
2	285	From the tube well of Guru Baksh Singh Village Chak alla Baksh upstream of the unit premise away about 500	120 ft	31.925148	75.6305

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		m as reference sample Upstream			
3	286	From the tube well of Sh. Jasvir Singh Village Madinpur opposite gate of unit Near bagasse yard area	120 ft	31.928658	75.630748
4	287	From the bore well of residential house near Satish Kirana Store ward No 12 Village Chak Alla Baksh	90 ft	31.922938	75.62305
5	288	From the bore well of adjacent sugar mill downstream of the sugar mill	70 ft	31.929273	75.625589

30. The collected samples were analysed following BIS and APHA standards at the PPCB Central Laboratory, Patiala. The physico-chemical, biological, and heavy metal analysis results of the groundwater samples are presented in the table below:

Parameters	Units	284	285	286	287	288	Permissible limit (10500 2012)
pH	--	7.0	7.4	7.2	7.0	7.0	6.5-8.5
Colour	Co-pt	BDL	BDL	BDL	BDL	BDL	15
Turbidity	NTU	< 1	< 1	< 1	< 1	< 1	05
Total Dissolved solids	mg/l	681	348	499	1083	622	2000
Biochemical oxygen demand	mg/l	< 5	< 5	< 5	< 5	< 5	--
Chemical oxygen demand	mg/l	14	< 5	< 5	8	10	--
Ammonia (as Total ammonia-N)	mg/l	BDL	BDL	BDL	BDL	BDL	0.5
Boron (as B)	mg/l	BDL	BDL	BDL	BDL	BDL	1.0
Calcium (as Ca)	mg/l	62	39	51	76	59	200
Chloride (as Cl)	mg/l	26	21	17	56	39	1000
Fluoride (as F)	mg/l	0.4	0.2	0.3	0.7	0.6	1.5
Magnesium (as Mg)	mg/l	12	06	08	15	13	100
Sulphate (as SO <sub>4</sub> )	mg/l	46	30	40	78	56	400
Nitrate (as NO <sub>3</sub> )	mg/l	0.3	BDL	0.4	0.5	0.3	45
Total alkalinity (as CaCO <sub>3</sub> )	mg/l	125	104	121	168	172	600
Total Hardness	mg/l	204	123	161	252	201	600
Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/l	BDL	BDL	BDL	BDL	BDL	0.002
Total Arsenic (as As)	mg/l	BDL	BDL	BDL	BDL	BDL	0.01
Iron (as Fe)	mg/l	< 0.1	4.80	0.14	1.10	6.35	0.30
Copper (as Cu)	mg/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	1.5
Zinc (as Zn)	mg/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	15

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Cadmium (as Cd)	mg/l	BDL	BDL	BDL	BDL	BDL	0.003
Lead (as Pb)	mg/l	BDL	BDL	BDL	BDL	BDL	0.01
Nickel (as Ni)	mg/l	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.02
Total Chromium (as Cr)	mg/l	BDL	BDL	BDL	BDL	BDL	0.05

\*BDL: Below Detection Limit.

31. It is evident from above analysis results all ground samples have a pH between 7.0 and 7.4, which is within the permissible range. Further colour and turbidity also found within limits.
32. All samples have TDS values below 2000 mg/L, indicating acceptable levels. However, sample location (287) (1083 mg/L) has the highest TDS, which may indicate some mineral intrusion. The BOD is below detection limits (<5 mg/L), suggesting minimal organic pollution. However, COD is within safe limits, except for sample location 284 (14 mg/l), which may be localized effect or geogenic.
33. The Ammonia, Boron, and Phenolic Compounds concentrations were found below detection (BDL) limits in the all-groundwater samples.
34. The analysis results indicate that Calcium, Magnesium, Chloride, and Sulphate levels are within permissible limits. Additionally, Nitrate levels are low (maximum: 0.5 mg/L vs. permissible limit: 45 mg/L), indicating no significant contamination from agricultural fertilizers.
35. Heavy Metals (Lead, Arsenic, Cadmium, Chromium, Nickel, Copper, and Zinc) were found below detection a limit which indicates there is no toxic metal contamination.
36. The analysis results indicate that iron (Fe) concentrations exceed the permissible limits for drinking water as per BIS 10500:2012 in three samples—285 (4.80 mg L), 287 (1.10 mg/L), and 288 (6.35 mg/L). This may be due to scaling/ corrosion of the tube well pipelines.
37. The Total Hardness & Alkalinity of all ground water samples were found within permissible limits.

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38. The copy of analysis results of Ground water samples is attached herewith as  
**Annexure-VI**

#### 4.1 Irrigation Suitability:

39. The suitability of ground water for irrigation is mainly assessed through Sodium Absorption Ratio (SAR) and Residual Sodium Carbonate (RSC) values.

##### (i) Sodium Absorption Ratio (SAR):

The SAR is an irrigation water quality parameter used in the management of sodium-affected soils. It is an indicator of the suitability of water for use in agricultural irrigation as determined from the concentrations of the main alkali (Na) and alkaline earth (Ca & Mg) cations present in the water. On the basis of SAR range, irrigation water can be classified into four classes as SAR < 10 (ideal or excellent), 10–18 (good), 18–26 (doubtful) and > 26 (unsuitable).

All the samples collected are having the values of SAR in the range of 1.50 to 2.52, hence falling in the ideal or excellent category for irrigation use.

##### (ii) Residual Sodium Carbonate (RSC):

The Alkali hazards of irrigation ground waters are estimated through the computation of Residual Sodium Carbonate (RSC), also known as Eaton's Index. Waters with RSC value < 1.25 meq/L are safe for irrigational uses, RSC between 1.25 and 2.5 are marginal and waters with RSC value > 2.5 meq/L are unsafe. In this study, **four samples** (284, 285, 286 and 287) have **RSC values below 1.25 meq/L**, classifying them as **safe** for irrigation. However, **one sample (288) has an RSC value of 1.43 meq/L**, placing it in the **marginal category**.

#### 5.0 Overall Conclusion on Groundwater Quality :

40. Overall, the groundwater quality is within permissible limits for most parameters.

However, iron concentrations in three samples (285, 287, and 288) exceed the permissible limit, and TDS levels in sample 287 are relatively high. Based on SAR and RSC values, the groundwater is suitable for irrigation. However, further confirmation is recommended through comprehensive groundwater monitoring in the area with more sampling.

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41. Geo-tagged photographs taken during site visit dated 07.01.2025 is attached as **Annexure-VII**.

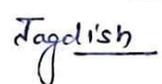
**6.0 Conclusion & Recommendations of the Committee:**

1. It is suggested that a detailed investigation is to be done to assess the status of ground water in this area with large set of samples as to confirm the any industrial ground.
2. The Unit does not have the valid permission from Punjab Water Resources Development Authority (PWRDA) for extracting the groundwater from tube wells.
3. The Unit does not have a proper irrigation management plan for utilizing the treated effluent in its premises' plantation area to prevent water stagnation between the ridges and furrows.
4. The Unit shall install flow measuring device at inlet of ETP and excess condensate generation and records of the same was maintained.
5. The Unit shall install pressure gauge device at filtration system of ETP as well as STP to check the performance of filters and avoid chocking.
6. The Unit shall make the floor lining impervious for the press mud storage area and dispose of it in an environmentally sound manner, either within the premises or outside, as approved by PPCB. Furthermore, records of press mud generation, storage capacity, disposal methods, and utilization shall be maintained.
7. The Unit should install online emission monitoring system at boiler of 38 TPH capacity. Further ensure connectivity with CPCB/PPCB portal.

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8. The Unit shall ensure safe transportation and storage of bagasse and fly ash, so that can avoid any fugitive emission of bagasse and fly ash dust particles.
9. The Unit shall ensure regular maintenance and operation and calibration of the online system so as to obtain continuous accurate results.

7.0 **Joint Committee:** (As per order of the Hon'ble NGT Principal Bench, New Delhi dated 21.11.2024)

Name & Designation	Organizations / Institutes / Departments	Signature
Dr. K. Muthamizh Selvan, Scientist 'E'	Regional Office, Ministry of Environment, Forest and Climate Change (MoEF&CC), Chandigarh (Representative of MoEF&CC)	
Er. Jagdish Prasad Meena, Scientist- 'D'	Central Pollution Control Board, Regional Directorate, Chandigarh (Representative of CPCB, RD Chandigarh)	
Er. Deepak Chadha, Environmental Engineer.	PPCB, Regional Officer, Hoshiarpur (Member nominated by Member Secretary, PPCB and by District Magistrate, Hoshiarpur)	

Item No. 03

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 1266/2024

Kulwinder Singh

Applicant

Versus

State of Punjab &amp; Ors.

Respondent(s)

Date of hearing: 21.11.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON  
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER  
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Applicant: None

**ORDER**

1. This original application is registered on the basis of a latter petition sent by one Kulwinder Singh resident of Chakkala Baksh, Ward No. 12, Tehsil Mukeria, District Hoshiarpur, Punjab.
2. Complaint of the applicant is in respect of discharge of polluted effluent by sugar mill Mukeria, causing water pollution in the nearby area and damaging the crops.
3. The applicant is an agriculturist, and he has alleged that he had dug borewells for irrigation, but dirty water is coming out from the borewell. He has alleged that the groundwater of the entire area has been polluted, and such water pollution is affecting the fertility of the land and also the crops. The applicant has also alleged that various complaints were made to the authorities, but no action has been taken, and due to the adverse effect of pollution caused by the sugar mill, his financial position is weakened.
4. Original application raises substantial issue relating to compliance of environmental norms.

5. Having regard to the nature of the grievance raised in the letter petition, we deem it proper to implead the following as respondents:

Respondent no.1- Member Secretary, Punjab Pollution Control Board (PPCB);

Respondent no.2- Regional Officer, MoEF&CC, Chandigarh;

Respondent no.3- District Magistrate, Hoshiarpur, Punjab.

6. Having regard to the seriousness of the complaint, we also deem it proper to form a Joint Committee comprising the representative of the Member Secretary, PPCB, representative of Member Secretary CPCB, RO, MoEF&CC, Chandigarh and District Magistrate, Hoshiarpur who will act as the coordinating agency in the Joint Committee.

7. The Joint Committee will visit the site, ascertain the truthfulness of the allegations made in the complaint, collect the samples from discharge of the sugar mill and nearby water sources and get the sample analysis done comparing compliance with standards stipulated in CTO and submit the report before the Tribunal.

8. Let the report in compliance of the above directions be submitted by Joint Committee within a period of eight weeks.

9. List on 11.03.2025.

Prakash Shrivastava, CP

Arun Kumar Tyagi, JM

Dr. A. Senthil Vel, EM

November 21, 2024  
Original Application No. 1266/2024  
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## Annexure-2



**PUNJAB POLLUTION CONTROL BOARD**  
Invest Punjab, PBIP, Udyog Bhawan, Sector 17, Chandigarh.  
Website:- www.ppcb.gov.in

<b>Office Dispatch No :</b>	<b>Registered/Speed Post</b>	<b>Date:</b>
<b>Industry Registration ID:</b> R12HSP41196		<b>Application No :</b> 17128101

To,

**Mr.v. P. Gupta**  
Sugar Mill Colony  
Mukerian,Hoshiarpur-144211

**Subject: Grant Varied 'Consent to Operate' u/s 21 of Air (Prevention & Control of Pollution) Act, 1981 for discharge of emissions arising out of premises.**

With reference to your application for obtaining Varied 'Consent to Operate' u/s 21 of Air (Prevention & Control of Pollution) Act, 1981, you are hereby, authorized to operate an industrial unit for discharge of the emission(s) arising out of your premises subject to the Terms and Conditions as mentioned in this Certificate.

### 1. Particulars of Consent to Operate under Air Act, 1981 granted to the industry

<b>Consent to Operate Certificate No.</b>	CTOA/Varied/HSP/2022/17128101
<b>Date of issue :</b>	24/01/2022
<b>Date of expiry :</b>	31/03/2025
<b>Certificate Type :</b>	Varied
<b>Previous CTO No. &amp; Validity :</b>	CTE/Exp/HSP/2021/16452715 From:30/09/2021 To:02/08/2022

### 2. Particulars of the Industry

<b>Name &amp; Designation of the Applicant</b>	Mr.v. P. Gupta, (Vice President)
<b>Address of Industrial premises</b>	M/s Indian Sucrose Limited, , Village - Chak Alla Baksh, G. T. Road, Mukerian, Distt. Hoshiarpur - 144211 Pb., Mukerian,Hoshiarpur-144211
<b>Capital Investment of the Industry</b>	21469.24 lakhs
<b>Category of Industry</b>	Red
<b>Type of Industry</b>	Sugar
<b>Scale of the Industry</b>	Large
<b>Office District</b>	Hoshiarpur
<b>Consent Fee Details</b>	Rs. 864000/- vide cheque no. 538367 dated 30.09.2021. Rs.2,64,000/- vide cheque No. 388602 dt. 18.11.2021.
<b>Raw Materials (Name with Quantity per day)</b>	Sugarcane @9000Metric Tonnes/Day Bagasse @2520Metric Tonnes/Day
<b>Products (Name with Quantity per day)</b>	Sugar @900Metric Tonnes/Day Power @40Megawatt

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Page1

<b>By-products, if any, (Name with Quantity per day)</b>	<i>Molasses @405Metric Tonnes/Day Bagasse @2520Metric Tonnes/Day Press Mud @360Metric Tonnes/Day</i>
<b>Details of the machinery and process</b>	<i>As per the application form</i>
<b>Quantity of fuel required (in TPD) and capacity of boilers/ Furnace/Thermo heater etc.</b>	<i>Boiler of capacity 80 TPH (existing) - Bagasse @ 40 TPH Boiler of capacity 38 TPH (existing) - Bagasse @ 19 TPH Boiler of capacity 38 TPH (existing) - Bagasse @ 19 TPH Boiler of capacity 200 TPH (new) - Bagasse @ 1728 TPD &amp; Paddy Straw @192 TPD (atleast). 04 no. DG sets of capacity 500 KVA, 320 KVA, 200 KVA &amp; 25 KVA - HSD</i>
<b>Type of Air Pollution Control Devices to be installed</b>	<i>Boiler of capacity 80 TPH (existing) - Water Scrubber Boiler of capacity 38 TPH (existing) - Water Scrubber Boiler of capacity 38 TPH (existing) - Water Scrubber Boiler of capacity 200 TPH (new)- Electrostatic Precipitator (ESP) 04 no. DG sets of capacity 500 KVA, 320 KVA, 200 KVA &amp; 25 KVA - canopies alongwith Stack of height as per following formula: <math>H = h+0.2 (KVA)0.5</math> where h = height of the building in meters where the generator set is installed.</i>
<b>Stack height provided with each boiler/thermo heater/Furnace etc.</b>	<i>Boiler of capacity 80 TPH - Stack of height 50 m AGL Boiler of capacity 38 TPH - Stack of height 40 m AGL Boiler of capacity 38 TPH - Stack of height 40 m AGL Boiler of capacity 200 TPH - Stack of height 78 m AGL 04 no. DG sets of capacity 500 KVA, 320 KVA, 200 KVA &amp; 25 KVA - canopies alongwith Stack of height as per following formula: <math>H = h+0.2 (KVA)0.5</math> where h = height of the building in meters where the generator set is installed</i>
<b>Sources of emissions and type of pollutants</b>	<i>Boiler of capacity 80 TPH - SPM Boiler of capacity 38 TPH - SPM Boiler of capacity 38 TPH - SPM Boiler of capacity 200 TPH - SPM 04 no. DG sets of capacity 500 KVA, 320 KVA, 200 KVA &amp; 25 KVA - SPM</i>
<b>Standards to be achieved under Air(Prevention &amp; Control of Pollution) Act, 1981</b>	<i>As prescribed by the CPCB/Board/ MoEF&amp;CC</i>



24/01/2022

**(Guneet Sethi)**  
**Environmental Engineer**

For &amp; on behalf

of

**(Punjab Pollution Control Board)**

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Page2

**Endst. No.:**

**Dated:**

A copy of the above is forwarded to the following for information and necessary action please:

1. Senior Environmental Engineer, Zonal Office, Jalandhar.
2. Environmental Engineer, Regional Office, Hoshiarpur.



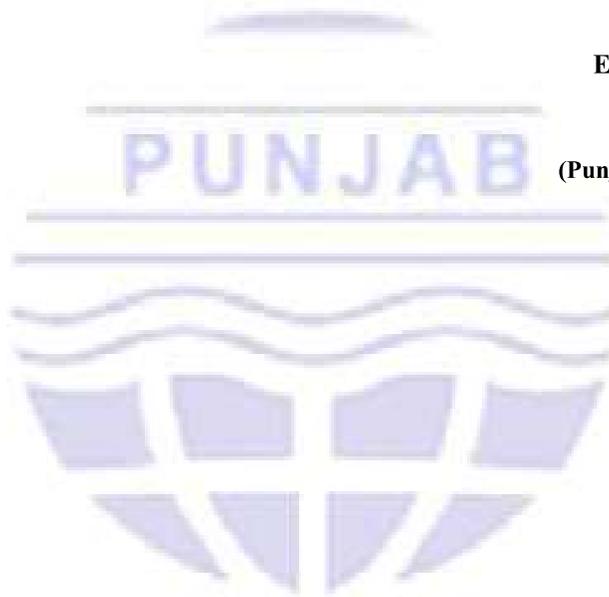
24/01/2022

**(Guneet Sethi)**  
**Environmental Engineer**

*For & on behalf*

*of*

**(Punjab Pollution Control Board)**



## TERMS AND CONDITIONS

### A. GENERAL CONDITIONS

1. This consent is not valid for getting power load from the Punjab State Power Corporation Ltd. or for getting loan from the financial institutions.
2. The industry shall apply for renewal /extension of consent at least two months before expiry of the consent.
3. The industry shall not violate any of the norms prescribed under the Air (Prevention & Control of Pollution) Act, 1981, failing which, the consent shall be cancelled / revoked.
4. The achievement of adequacy and efficiency of the air pollution control devices installed shall be the entire responsibility of the industry
5. The authorized fuel being used shall not be changed without the prior written permission of the Board.
6. The industry shall not discharge any fugitive emissions. All gases shall be emitted through a stack of suitable height, as per the norms fixed by the Board from time to time.
7. The industry shall provide port-holes, platforms and/or other necessary facilities as may be required for collecting samples of emissions from any chimney, flue or duct or any other outlets.

#### Specifications of the port-holes shall be as under:-

- i) The sampling ports shall be provided atleast 8 times chimney diameter downstream and 2 times upstream from the flow disturbance. For a rectangular cross section the equivalent diameter (De) shall be calculated from the following equation to determine upstream, downstream distance:-  

$$De = 2 LW / (L+W)$$
 Where L= length in mts. W= Width in mts.
- ii) The sampling port shall be 7 to 10 cm in diameter
8. The industry shall put display Board indicating environmental data in the prescribed format at the main entrance gate.
9. The industry shall discharge all gases through a stack of minimum height as specified in the following standards laid down by the Board.

#### (i) Stack height for boiler plants

S.NO.	Boiler with Steam Generating Capacity	Stack heights
1.	Less than 2 ton/hr.	9 meters or 2.5 times the height of neighboring building which ever is more
2.	More than 2 ton/hr. to 5 ton/hr.	12 meters
3.	More than 5 ton/hr. to 10 ton/hr	15 meters
4.	More than 10 ton/hr. to 15 ton/hr	18 meters
5.	More than 15 ton/hr. to 20 ton/hr	21 meters
6.	More than 20 ton/hr. to 25 ton/hr.	24 meters
7.	More than 25 ton/hr. to 30 ton/hr.	27 meters
8.	More than 30 ton/hr.	30 meters or using the formula $H = 14 Qg^{0.3}$ or $H = 74 (Qp)^{0.24}$ Where Qg = Quantity of SO <sub>2</sub> in Kg/hr. Qp = Quantity of particulate matter in Ton/day.

**Note : Minimum Stack height in all cases shall be 9.0 mtr. or as calculated from relevant formula whichever is more.**

**(ii) For industrial furnaces and kilns, the criteria for selection of stack height would be based on fuel used for the corresponding steam generation.**

**(iii) Stack height for diesel generating sets:**

Capacity of diesel generating set	Height of the building	Height of the Stack
0-50 KVA	Height of the building	+ 1.5 mt
50-100 KVA	-do-	+ 2.0 mt.
100-150 KVA	-do-	+ 2.5 mt.
150-200 KVA	-do-	+ 3.0 mt.
200-250 KVA	-do-	+ 3.5 mt.
250-300 KVA	-do-	+ 3.5 mt.

**For higher KVA rating stack height H (in meter) shall be worked out according to the formula:**

$$H = h + 0.2 (KVA) 0.5$$

where h = height of the building in meters where the generator set is installed.

10. The pollution control devices shall be interlocked with the manufacturing process of the industry to ensure its regular operation.
11. The existing pollution control equipment shall be altered or replaced in accordance with the directions of the Board, and no pollution control equipment or chimney shall be altered or as the case may be erected or re-erected except with the prior approval of the Board.
12. The industry will provide canopy and adequate stack with the D.G sets so as to comply with the provision of notification No GSR-371 E dated 17-5-2002(amended from time to time) issued by MOEF under Environment (Protection) Act, 1986.
13. The Govt. of Punjab, Department of Science, Technology & Environment vide its notification no.4/46/92-3ST/2839 dt. 29/12/1993 has put prohibition on the use of rice husk as fuel after 1.4.1995 except the following:-

**½In the form of briquettes and use of rice husk in fluidized bed combustion. So the industry shall make the necessary arrangement to comply with the above notification.½**

14. The industry shall submit balance sheet of every financial year to the concerned Regional Office by 30th June of every year
15. That the industry shall submit a yearly certificate to the effect that no addition / up-gradation/ modification/ modernization has been carried out during the previous year otherwise the industry shall apply for the varied consent.
16.
  - a) The industry shall ensure that at any time the emission do not exceed the prescribed emissions standards laid down by the Board from time to time for such type of industry /emissions.
  - b) The industry shall ensure that the emissions from each stack shall conform to the following emission standards laid down by the Board in respect of the Industrial Boilers.

Steam Generating capacity A.	Required particulate matter B.	
<i>Area upto 5 Km from Other than 'A' class Other than the periphery of I and Class-II town</i>		
<i>Less than 2 ton/hr.</i>	800 mg/NM3	1200 mg/NM3
<i>2 ton to 10 ton/hr.</i>	500 mg/NM3	1000 mg/NM3
<i>Above 10 ton to 15 ton/hr</i>	350 mg/NM3	500 mg/NM3
<i>Above 15 ton/hr</i>	150 mg/NM3	150 mg/NM3

All emissions normalized to 12% carbon dioxide.

17. The industry shall ensure that the Hazardous Wastes generated from the premises are handled as per the provisions of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008, without any adverse effect on the environment, in any manner.
18. The air pollution control equipments shall be kept at all time in good running condition and;

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*Page 5*

- (i) All failures of control equipments.
  - (ii) The emissions of any air pollutant into the atmosphere in excess of the standards lay down by the Board occurring or being apprehended to occur due to accident or other unforeseen act or event. 'Shall be intimated through fax to the concerned Regional Office as well as to the Director of Factories, Punjab, Chandigarh as required under rule 10 of the Punjab State Board for the Prevention and Control of Air Pollution Rules, 1983'.
19. The industry shall plant minimum of three suitable varieties of trees at the density of not less than 1000 trees per hectare all along the boundary of the industrial premises.
  20. The industry shall submit a site emergency plan approved by the Chief Inspector of Factories, Punjab as applicable.
  21. The industry shall comply with the conditions imposed by the SEIAA/MOEF in the Environmental Clearance granted to it as required under EIA notification dated 14/9/06, if applicable.
  22. The industry shall make necessary arrangements for the monitoring of stack emissions and shall get its emissions analyzed from lab approved / authorized by the Board:-
    - (i) Once in Year for Small Scale Industries.
    - (ii) Twice/thrice/four time in a Year for Large/Medium Scale Industries.
  23. The industry shall maintain the following record to the satisfaction of the Board :-
    - (i) Log books for running of air pollution control devices or pumps/motors used for it.
    - (ii) Register showing the result of various tests conducted by the industry for monitoring of stack emissions and ambient air.
    - (iii) Register showing the stock of absorbents and other chemicals to be used for scrubbers.
  24. The industry will install the separate energy meter for running pollution control devices and shall maintain record with respect to operation of air pollution control device so as to satisfy the Board regarding the regular operation of air pollution control device and monthly reading / record may be sent to the Board by the fifth of the following month.
  25. The industry shall provide online monitoring system as applicable, for in stack emission and shall maintain the record of the same for inspection of the Board Officers.
  26. The Board reserves the right to revoke the consent granted to the industry at any time, in case the industry is found violating the provisions of Air (Prevention & Control of Pollution) Act, 1981 as amended from time to time.
  27. The industry shall comply with any other conditions laid down or directions issued in due course by the Board under the provisions of the Air (Prevention & Control of Pollution) Act, 1981.
  28. Nothing in this consent shall be deemed to neither preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities or penalties to which the applicant is or may be subjected to under this or any other Act.
  29. Any amendments/revisions made by the Board/CPCB/MOEF in the emission/stack height standards shall be applicable to the industry from the date of such amendments/revisions.
  30. The industry shall dispose off its solid waste generated by the burning of fuel in an Environmentally Sound Manner within the premises/outside as approved by the Board, to avoid public nuisance and air pollution problem in the area.
  31. The industry shall ensure that no air pollution problem or public nuisance is created in the area due to the discharge of emissions from the industry.
  32. The industry shall provide adequate arrangement for fighting the accidental leakage/discharge of any air pollutant/gas/ liquids from the vessels, mechanical equipment's etc, which are likely to cause environmental pollution.
  33. The industry shall not change or alter the manufacturing process(es) and fuel so as to change the quality/quantity of emissions generated without the prior permission of the Board.
  34. The industry shall earmark a land within their premises for disposal of boiler ash in an environmentally sound manner, and / or the industry shall make necessary arrangements for proper disposal of fuel ash in a scientific manner and shall maintain proper record for the same, if applicable.
  35. The industry shall obtain and submit Insurance cover under the Public Liability Insurance Act, 1991.
  36. The industry shall provide proper and adequate air pollution control arrangements for control emission from its fuel handling area, if applicable.

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*Page 6*

37. The industry shall comply with the code of practice as notified by the Government/Board for the type of industries where the siting guidelines / Code of Practice have been notified.
38. The industry shall not cause any nuisance/traffic hazard in vicinity of the area
39. The industry shall ensure that the noise & air emission from D.G. sets do not exceed the standards prescribed for D.G. sets by the Ministry of Environment & Forests, New Delhi.
40. The industry shall ensure that there will not be significant visible dust emissions beyond the property line
41. The industry shall provide adequate and appropriate air pollution control devices to contain emissions from handling, transportation and processing of raw material & product of the industry.
42. The Industry shall ensure that its production capacity does not exceed the capacity mentioned in the consent and shall not carry out any expansion without the prior permission / NOC of the Board.

**B. SPECIAL CONDITIONS**

1. The industry shall utilize paddy straw as fuel in the new boiler upto atleast 10 % (i.e 192 TPD) of the total fuel consumption. The industry shall maintain a proper record of daily consumption of paddy straw in the proposed boiler and shall submit monthly report in this regard to the concerned Regional Office.
2. The industry shall install 24 X 7 continuous monitoring system at stack of new boiler of capacity 200 TPH, to monitor stack emissions, within 01 month, as per the conditions of the environmental Clearance issued to it by MoEF&CC.
3. The industry shall connect the 24 X 7 continuous monitoring system with served of CPCB/SPCB, within 02 months and shall submit compliance of the same in Regional Office, within 07 days, thereafter.
4. The industry shall comply with all the conditions of the Environmental Clearance issued to it by MoEF&CC.
5. The industry shall get its stack emission samples analyzed from Board's lab/Board's approved Lab within 01 month.
6. The industry shall obtain all the statutory approvals/clearances from the concerned departments
6. The Consent is being issued to the industry based upon the documents/ information submitted by it alongwith the online application form. The Board would be at liberty to take penal action against the industry/project proponent and its responsible/ concerned person(s) in case information/document is detected as incorrect/false/misleading at any point of time, without any opportunity of Personal Hearing.
7. In case the industry fails to comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, Environment (Protection) Act, 1986 and/or any other environmental law applicable to the project and Rules, Circulars & Directions issued by the Board from time to time, action as deemed fit shall be taken against the industry .



24/01/2022

**(Guneet Sethi)**  
**Environmental Engineer**

*For & on behalf*

*of*

**(Punjab Pollution Control Board)**

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*Page7*



## PUNJAB POLLUTION CONTROL BOARD

ZONAL OFFICE JALANDAHR.

Website:- www.ppcb.gov.in

Office Dispatch No :

Registered/Speed Post

Date:

Industry Registration ID : R12HSP41196

Application No : 18346968

To,

**Sh Jaitender kumar**  
**Sugar Mill Colony**  
**Mukerian,Hoshiarpur-144211**

**Subject: Renewal of Authorization for operating a facility for 'Collection, Generation, Storage, ' of Hazardous Wastes as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 .**

Sh Jaitender kumar of M/s indian sucrose limited, is hereby granted an authorisation based on the enclosed signed inspection report for Collection, Generation, Storage, on the premises situated at Village - chak alla baksh, g. t. road, mukerian, distt. hoshiarpur - 144211 pb., Mukerian, Hoshiarpur-144211

### 1. Particulars of Authorization granted to the Industry

Authorization No	HWM/renew/HSP/2022/18346968
Previous Authorization No	15644947
Date of issue :	10/05/2022
Date of expiry :	09/05/2027
Previous Authorization Date of Issue :	15/09/2021
Previous Authorization Date of Expiry :	31/03/2022
Authorization Type :	renew

### 2. Particulars of the Industry

Name & Designation of the Applicant	Mr.V. P. Gupta, (Vice President)
Address of Industrial premises	M/s indian sucrose limited, , Village - chak alla baksh, g. t. road, mukerian, distt. hoshiarpur - 144211 pb., Mukerian,Hoshiarpur-144211
Capital Investment of the Industry	29331.82 lakhs
Category of Industry	Red
Type of Industry	Sugar
Scale of the Industry	Large
Office District	Hoshiarpur

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Page1

## 3. Particulars of Wastes

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)
Schedule I 5.1-Used or spent oil	Generation , Collection , Storage	1.0 KL/Annum
Schedule I 5.2-Wastes or residues containing oil	Generation , Collection , Storage	1.0 T/Annum
Schedule I 33.1-Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	Generation , Collection , Storage	2.0 T/Annum
Schedule I 35.2-Spent ion exchange resin containing toxic metals	Generation , Collection , Storage	1.0 T/Annum

4. The authorisation is subject to the general and specific conditions as appended with the Authorization.



10/05/2022

**(Arun Kakkar)**  
**Environmental Engineer**

*For & on behalf*

*of*

**(Punjab Pollution Control Board)**

**Endst. No.:**

**Dated:**

A copy of the above is forwarded to the following for information and necessary action please:

Environmental Engineer, Regional Office, Hoshiarpur.

10/05/2022

**(Arun Kakkar)**  
**Environmental Engineer**

*For & on behalf*

*of*

**(Punjab Pollution Control Board)**

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*M/s indian sucrose limited, Village - chak alla baksh, g. t. road, mukerian, distt. hoshiarpur - 144211 pb.,Mukerian,Hoshiarpur,144211*

*Page2*

## TERMS AND CONDITIONS

### A. GENERAL CONDITIONS

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation 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 authorised 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 authorised 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 utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
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 authorisation 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.

### B. SPECIFIC CONDITIONS

*The industry shall dispose off hazardous wastes of all categories to concerned authorized companies on regular basis.*



10/05/2022

**(Arun Kakkar)**  
**Environmental Engineer**

*For & on behalf*

*of*

**(Punjab Pollution Control Board)**

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*Page3*



## PUNJAB POLLUTION CONTROL BOARD

Invest Punjab, PBIP, Udyog Bhawan, Sector 17, Chandigarh

Website:- www.ppcb.gov.in

Office Dispatch No :

Registered/Speed Post

Date:

Industry Registration ID: R12HSP41196

Application No : 17125286

To,

**Sh Jaitender Kumar**  
**Sugar Mill Colony**  
**Mukerian, Hoshiarpur-144211**

**Subject: Grant Varied 'Consent to Operate' an outlet u/s 25/26 of Water (Prevention & Control of Pollution) Act, 1974 for discharge of effluent.**

With reference to your application for obtaining Varied 'Consent to Operate' an outlet for discharge of the effluent u/s 25/26 of Water (Prevention & Control of Pollution) Act, 1974, you are, hereby, authorized to operate an industrial unit for discharge of the effluent(s) arising out of your premises subject to the Terms and Conditions as mentioned in this Certificate

### 1. Particulars of Consent to Operate under Water Act, 1974 granted to the industry

<b>Consent to Operate Certificate No.</b>	CTOW/Varied/HSP/2022/17125286
<b>Date of issue :</b>	24/01/2022
<b>Date of expiry :</b>	31/03/2025
<b>Certificate Type :</b>	Varied
<b>Previous CTO No. &amp; Validity :</b>	CTE/Exp/HSP/2021/16452715 From:30/09/2021 To:02/08/2022

### 2. Particulars of the Industry

<b>Name &amp; Designation of the Applicant</b>	Mr.v. P. Gupta, (Vice President)
<b>Address of Industrial premises</b>	M/s Indian Sucrose Limited, , Village - Chak Alla Baksh, G. T. Road, Mukerian, Distt. Hoshiarpur - 144211 Pb., Mukerian, Hoshiarpur-144211
<b>Capital Investment of the Industry</b>	21469.24 lakhs
<b>Category of Industry</b>	Red
<b>Type of Industry</b>	Sugar
<b>Scale of the Industry</b>	Large
<b>Office District</b>	Hoshiarpur
<b>Consent Fee Details</b>	Rs. 864000/- vide cheque no. 538366 dated 30.09.2021
<b>Raw Materials(Name with quantity per day)</b>	Sugarcane @9000Metric Tonnes/Day Bagasse @2520Metric Tonnes/Day
<b>Products (Name with quantity per day)</b>	Sugar @900Metric Tonnes/Day Power @40Megawatt

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Page1

<b>By-Products, if any,(Name with quantity per day)</b>	<i>Molasses @405 Metric Tonnes/Day Bagasse @2520 Metric Tonnes/Day Press Mud @360 Metric Tonnes/Day</i>
<b>Details of the machinery and processes</b>	<i>As per the application form.</i>
<b>Details of the Effluent Treatment Plant</b>	<i>Trade Effluent @1782.0 KLD - Effluent Treatment Plant (ETP) Domestic Effluent @41.0 KLD - Sewage Treatment Plant (STP)</i>
<b>Mode of Disposal</b>	<i>Treated trade effluent @ 1782 KLD &amp; treated domestic effluent @ 41 KLD onto land for in an area of 29 acres as per Karnal Technology, within the premises of the unit.</i>
<b>Standards to be achieved under Water(Prevention &amp; Control of Pollution) Act, 1974</b>	<i>As prescribed by the CPCB/Board/ MoEF&amp;CC</i>



24/01/2022

**(Guneet Sethi)**  
**Environmental Engineer**

*For & on behalf  
of*

**(Punjab Pollution Control Board)**

**Endst. No.:****Dated:**

A copy of the above is forwarded to the following for information and necessary action please:

1. Senior Environmental Engineer, Zonal Office, Jalandhar.
2. Environmental Engineer, Regional Office, Hoshiarpur.

24/01/2022

**(Guneet Sethi)**  
**Environmental Engineer**

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*Page2*

*For & on behalf*  
*of*  
**(Punjab Pollution Control Board)**



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*Page 3*

## TERMS AND CONDITIONS

### A. GENERAL CONDITIONS

1. This consent is not valid for getting power load from the Punjab State Power Corporation Limited or for getting loan from the financial institutions.
2. The industry shall apply for renewal/further extension in validity of consent atleast two months before expiry of the consent.
3. The industry shall ensure that the effluent discharging through the authorized outlet shall confirm to the prescribed standards as applicable from time to time.
4. The industry shall plant minimum of three suitable varieties of trees at the density of not less than 1000 trees per hectare all along the boundary of the industrial premises.
5. The achievement of the adequacy and efficiency of the effluent treatment plant/pollution control devices/re-circulation system installed shall be the entire responsibility of the industry.
6. The industry shall ensure that the Hazardous Wastes generated from the premises are handled as per the provisions of the Hazardous Wastes(Management, Handling and Trans boundary Movement) Rules, 2008 as amended time to time , without any adverse effect on the environment, in any manner
7. The responsibility to monitor the effluent discharged from the authorized outlet and to maintain a record of the same rests with the industry. The Board shall only test check the accuracy of these reports for which the industry shall deposit the samples collection and testing fee with the Board as and when required.
8. The industry shall submit balance sheet of every financial year to the concerned Regional Office by 30th June of every year.
9. The industry shall submit a yearly certificate to the effect that no addition/up-gradation/ modification/modernization has been carried out during the previous year otherwise the industry shall apply for the varied consent.
10. During the period beginning from the date of issuance and the date of expiration of this consent, the applicant shall not discharge floating solids or visible foam.
11. Any amendments/revisions made by the Board in the tolerance limits for discharges shall be applicable to the industry from the date of such amendments/revisions.
12. The industry shall not change or alter the manufacturing process(es) so as to change the quality and/or quantity of the effluents generated without the written permission of the Board.
13. Any upset conditions in the plant/plants of the factory, which is likely to result in increased effluent and/or result in violation of the standards lay down by the Board shall be reported to the Environmental Engineer, Punjab Pollution Control Board of concerned Regional Office immediately failing which any stoppage and upset conditions that come to the notice of the Board/its officers, will be deemed to be intentional violation of the conditions of consent.
14. The industry shall provide terminal manhole(s) at the end of each collection system and a manhole upstream of final outlet (s) out of the premises of the industry for measurement of flow and for taking samples.
15. The industry shall for the purpose of measuring and recording the quantity of water consumed and effluent discharged, affix meters of such standards and at such places as approved by the Environmental Engineer, Punjab Pollution Control Board of the concerned Regional Office.
16. The industry shall maintain record regarding the operation of effluent treatment plant i.e. record of quantity of chemicals and energy utilized for treatment and sludge generated from treatment so as to satisfy the Board regarding regular and proper operation of pollution control equipment.
17. The industry shall provide online monitoring equipment<sup>1/2</sup>s for the parameters as decided by concerned Regional Office with the effluent treatment plant/air pollution control devices installed, if applicable.
18. The pollution control devices shall be interlocked with the manufacturing process of the industry.
19. The authorized outlet and mode of disposal shall not be changed without the prior written permission of the Board.
20. The industry shall comply with the conditions imposed by the SEIAA / MOEF in the environmental clearance granted to it as required under EIA notification dated 14/9/06, if applicable.
21. The industry shall obtain and submit Insurance cover as required under the Public Liability Insurance Act, 1991.
22. The industry shall not use any unauthorized out-let(s) for discharging effluents from its premises. All unauthorized outlets, if any, shall be connected to the authorized outlet within one month from the date of issue of this consent.

*"This is computer generated document from OCMMS by PPCB"*

*M/s Indian Sucrose Limited, Village - Chak Alla Baksh, G. T. Road, Mukerian, Distt. Hoshiarpur - 144211 Pb., Mukerian, Hoshiarpur, 144211*

*Page4*

23. The industry shall make necessary arrangements for the monitoring of effluent being discharged by the industry and shall monitor its effluents:-
  - (i) Once in Year for Small Scale Industries.
  - (ii) Four in a Year for Large/Medium Scale Industries.
  - (iii) The industry will submit monthly reading/ data of the separate energy meter installed for running of effluent treatment plant/re-circulation system to the concerned Regional Office of the Board by the 5th of the following month.
24. The industry shall provide electromagnetic flow meters at the source of water supply, at inlet/outlet of effluent treatment plant within one month and shall maintain the record of the daily reading and submit the same to the concerned Regional Office by the 5th of the following month.
25. The Board reserves the right to revoke this consent at any time in case the industry is found violating any of the conditions of this consent and/or the provisions of Water (Prevention & Control of Pollution) Act, 1974 as amended from time to time.
26. The issuance of this consent does not convey any property right in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State or Local Laws or Regulations.
27. The consent does not authorize or approve the construction of any physical structures or facilities for undertaking of any work in any natural watercourse.
28. Nothing in this consent shall be deemed to neither preclude the institution of any legal action nor relieve the applicant from any responsibilities, liabilities or penalties to which the applicant is or may be subjected under this or any other Act.
29. The industry shall make necessary and adequate arrangements to hold back the effluent in case of failure of septic tank.
30. The diversion or bye pass of any discharge from facilities utilized by the applicant to maintain compliance with the terms and conditions of this consent is prohibited except.
  - (i) Where unavoidable to prevent loss of life or some property damage or
  - (ii) Where excessive storm drainage or run off would damage facilities necessary for compliance with terms and conditions of this consent. The applicant shall immediately notify the consent issuing authority in writing of each such diversion or bye-pass.
31. The industry shall ensure that no water pollution problem is created in the area due to discharge of effluents from its industrial premises.
32. The industry shall comply with the code of practice as notified by the Government/ Board for the type of industries where the siting guidelines/ code of practice have been notified.
33. Solids, sludge, filter backwash or other pollutant removed from or resulting from treatment or control of waste waters shall be disposed off in such a manner to prevent any pollutants from such materials from entering into natural water.
34. The industry shall re-circulate the entire cooling water and shall also re-circulate/reuse to the maximum extent the treated effluent in processes
35. The industry shall make necessary and adequate arrangements to hold back the effluent in case of failure of re-circulation system/ effluent treatment plant.
36. The industry shall make proper disposal of the effluent so as to ensure that no stagnation occurs inside and outside the industrial premises during rainy season and no demand period.
37. Where excessive storm water drainage or run off, would damage facilities necessary for compliance with terms and conditions of this consent, the applicant shall immediately notify the consent issuing authority in writing of each such diversion or bye-pass.
38. The industry shall submit a detailed plan showing therein the distribution system for conveying waste-water for application on land for irrigation along with the crop pattern for the year.
39. The industry shall ensure that the effluent discharged by it is toxicity free.
40. The industry shall not irrigate the vegetable crops with the treated effluents which are used/ consumed as raw.
41. Drains causing oil & grease contamination shall will be segregated. Oil & grease trap shall be provided to recover oil & grease from the effluent.

42. The industry shall establish sufficient number of piezometer wells in consultation with the concerned Regional Office, of the Board to monitor the impact on the Ground Water Quantity due to the industrial operations, and the monitoring shall be submitted to the Environmental Engineer of the concerned Regional Office by the 5th of every month.
43. The industry shall ensure that its production capacity & quantity of trade effluent do not exceed the quantity mentioned in the consent and shall not carry out any expansion without the prior permission/NOC of the Board.

**B. SPECIAL CONDITIONS**

1. The industry shall not exceed quantity of effluent generation per ton of cane crushed, beyond 0.2 m<sup>3</sup>/ton of cane crushed as per MoEF notification dated 14.01.2016.
2. The industry shall keep 29 acres of land area developed as per Karnal Technology, at all times, for discharge of treated effluent onto land for plantation.
3. The industry shall comply with all the conditions of the Environmental Clearance issued to it by MoEF&CC and shall submit six-monthly compliance report of the same to the Board.
4. The industry shall obtain all the statutory approvals/clearances from the concerned departments.
5. The Consent is being issued to the industry based upon the documents/ information submitted by it alongwith the online application form. The Board would be at liberty to take penal action against the industry/project proponent and its responsible/ concerned person(s) in case information/document is detected as incorrect/false/misleading at any point of time, without any opportunity of Personal Hearing.
7. In case the industry fails to comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, Environment (Protection) Act, 1986 and/or any other environmental law applicable to the project and Rules, Circulars & Directions issued by the Board from time to time, action as deemed fit shall be taken against the industry .



24/01/2022

**(Guneet Sethi)**  
**Environmental Engineer**

*For & on behalf*

*of*

**(Punjab Pollution Control Board)**



Forbes Marshall  
 Krohne Marshall  
 Forbes Vyncka  
 Forbes Marshall Area  
 Codel International  
 Forbes Marshall Steam Systems

### Annexure-3

#### CALIBRATION CERTIFICATE

Customer Details: Indian Sucrose Ltd., G.T. Road Mukerian, DIST: Hoshiarpur, PUNJAB

MODEL AND SERIAL NO.	CX1000-3922(COD,BOD,PH,TSS) & 202813
INSTRUMENT	MULTIPARAMETER ANALYZER
MAKE	FORBES MARSHALL PVT LTD
CALIBRATED ON	27-Feb-24
NEXT CALIBRATION	26-May-24

#### Calibration Test:

Input	Standard Solution	Before Calibration	After Calibration
COD	0 & 100PPM	24 & 74	0 & 100.1 PPM
TSS	0 & 100PPM	45 & 79	0 & 99.2 PPM
PH	7 pH	5.6 pH	7.0 pH

#### Note:

- The calibration results reported in this certificate are valid at this time and condition of measurement.
  - This report should not be reproduced except in full without our prior permission.
  - Deviations are permissible to +/- 5% of full range.
  - The Analyzer has been calibrated with customer provided calibration solution, all reading found respect to standard solution.

Calibrated By – Mr. Ramizraja Bardanwala

Date – 27-Feb-24



Forbes Marshall Private Limited  
 5CF-36, Phase-XI, Sias Nagar Mohali Punjab – 160085 Tel: +91-172-5039314, +91-172-5039315, Fax: +91-172-695098  
 Regd. Office: Opp 100th Milestone, GTS No. 2220, Mumbai-Pune Road, Kasarwadi, Pune, 411034, Maharashtra, India  
 Tel: +91 20 68138555, Fax: +91 20 68138402  
 CIN No: U28999PN1965PTC037806

Energy Conservation | Environment | Process Efficiency

www.forbesmarshall.com

# ANVITRON

(Manufacturer of Industrial Instruments)  
(ISO 9001:2015 Certified Company)

ANVITRON PVT. LTD.

P-98, GREEN WOOD CITY, NEAR SUBHARTI  
UNIVERSITY, MEERUT BY PASS ROAD,  
MEERUT-250002, UTTAR PRADESH  
Ph- 9045209111/9045209222/9045209566

Email- sales@anvitron.in

Website- www.anvitron.in

GST- 09AAZCA9436A1Z9

## Calibration Certificate

Certificate No : ANV/CERT/23-24/200	Flow meter Location : E IP
Date of Test : 15/11/2024	Due Date : 14/11/2025
Make Model : LPC/UPCS MAG-110	Sr. No : 2112803697
Customer Name : INDIAN SUCROSE LIMITED, UNIT- MUKERIAN	

## Details Of Flowmeter

Type of flowmeter	Electromagnetic	Power Supply	80-260 VAC
Display Type	Remote/Integral	Accuracy	(+/-) 0.5% of measured Valve
Output Signal	4-20 mA/RS 485	Calibrated Range	100 MS HR
Line Size	80MM		

### List of formulae

$$1) \quad \% \text{ of Deviation} = \frac{(Q_i - Q_m) \times 100}{Q_m}$$

### Nomenclature

$Q_m$  – Master's Flow Rate

$Q_i$ - Displayed Flow Rate

Calibration Method : Comparison Method  
Traceability : All the instruments used are traceable to National Standards through reference Standards and their calibrations are valid

## Calibration Results

Sr. No.	Master Flow Rate ( $Q_m$ )	Indicated Flow Rate ( $Q_i$ )	Deviation in $Q_i$
	m <sup>3</sup> /h	m <sup>3</sup> /h	%
1	99.7	100	0.30
2	77.7	78	0.53
3	49.9	50	0.20
4	24.92	25	0.32

Calibration by:- *Narendra*

Signature, Narendra

Verified by: ANVITRON PVT. LTD.

Signature: *Narendra*

It is hereby certified that the equipment mentioned above has been tested and found to meet its specifications. The performance of the above equipment is guaranteed for a period of 12 months from the date of installation or 18 months from the date of dispatch, whichever ever is earlier, against any manufacturing defects only.

## REPORT BY THE STATE BOARD ANALYST (see Rule 24)

Report No.62-65

Dated: 08.01.2025

I hereby certify that I Ms. Shaminder Kaur, JSO State Board Analyst duly appointed under sub section (3) of section 53 of the water (Prevention and Control of Pollution) Act, 1974 (Central Act 6 of 1974) received on the 8th day of January, 2025 from Sh. Sukhwant Singh, FA the sample of M/s Indian Sucrose Ltd, Mukerian, Distt Hoshiarpur for analysis. The samples were in a condition fit for analysis reported below:-

I further certify that I have analyzed the aforementioned samples from 08.01.2025 to 13.01.2025 and declare the results of the analysis reported below:-

The analysis has been made as per methods given in relevant parts of I.S. 3025, IS. 1622 Indian Standard Methods and test for industrial effluents. The details of the analysis are as follows:-

Point of sample collection: - As per data Sheet.

Sr. No.	Parameters	Inlet of ETP	Outlet of ETP	Aeration Tank I	Aeration Tank II
1	pH	12.9	7.9	-	-
2	Total Suspended Solids mg/l	450	56	-	-
3	Total Dissolved Solids mg/l	6289	1021	-	-
4	Chemical Oxygen Demand mg/l	4560	196	-	-
5	Bio-chemical Oxygen Demand mg/l	570	22	-	-
6	Oil & Grease mg/l	18.2	BDL	-	-
7	SAR	-	2.4	-	-
8	Mixed Liquid Suspended Solids mg/l	-	-	3150	2760
9	Mixed Liquid Volatile Suspended Solids mg/l	-	-	2170	1840

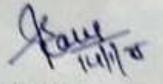
- Note : 1) All the results are in mg/l except pH  
2) Entire sample was consumed in Testing.  
3) BDL means below method detection limit.

The condition of the seals, fastening and container on receipt was as follows -

Seals & fastenings of the container were found intact.

Signed this 13<sup>th</sup> of January, 2025

Address:- Punjab Pollution Control Board  
Vatavaran Bhawan, Nabha Road,  
Patiala

  
(Signature)  
State Board Analyst

To

The Environmental Engineer,  
Punjab Pollution Control Board  
Regional Office - Hoshiarpur

Authorization Letter No.: 1723

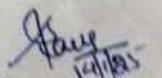
Dated - 14/1/25

Endst No. 1724-25

dt. 14/1/25

A copy of the above is forwarded to the:

- The Chief Environmental Engineer (Water), Punjab Pollution Control Board, Ludhiana.
- The Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office- Jalandhar.

  
(Signature)  
State Board Analyst

PUNJAB POLLUTION CONTROL BOARD,  
NABHA ROAD, PATIALA  
FORM-IV  
(See Sub-Rule (2) of Rule (12))  
REPORT BY THE STATE BOARD ANALYST

A.C. / SA  
18/1  
24/1/25

Report No. **Air Lab 03-04/2024-25**  
Dated the **08.01.2025**

I hereby certify that **Janak Raj** State Board Analyst duly appointed under sub section (2) of section 29 of the Air (Prevention and Control of Pollution) Act, 1981 received on the **8<sup>th</sup> day of January 2025** from **Sh. Sukhwant Singh, Senior Field Attendant sample of M/s Indian Sucrose, Ltd., Mukerian, Distt. Hoshiarpur** for analysis. The sample was in a condition fit for analysis reported below: -

I further certify that I have analyzed the aforementioned samples on **08.01.2025 to 13.01.2025** and declared results of the analysis to be as follows:

Sr no	Point of sample collection	Results (PM at 12% CO <sub>2</sub> )
1.	Port hole on stack after APCD attached with boiler furnace of capacity 40 TPH	112 mg/ Nm <sup>3</sup>
2.	Port hole on stack after APCD attached with boiler furnace of capacity 200 TPH	48 mg/ Nm <sup>3</sup>

The condition of the seals, fastening and container on receipt was as follows: -

**The Seals and fastening were found intact**  
Signed this 14<sup>th</sup> day of January, 2025

Address: -

Punjab Pollution Control Board  
Vatavaran Bhawan, Nabha Road,  
Patiala

  
(Signature)  
State Board Analyst

To

✓ The Environmental Engineer,  
Pb. Pollution Control Board,  
Regional Office, Hoshiarpur.

Authorization letter No. SPL-01

dated 07.01.2025

Endst no: - **2027-28**

Date: - **15/1/25**

A copy of the above is forwarded to the Senior Environmental Engineer, Punjab Pollution Control Board, Zonal Office- Jalandhar.

  
(Signature)  
State Board Analyst

**PUNJAB POLLUTION CONTROL BOARD**  
**CENTRAL LABORATORY**  
NABL Accredited & ISO 45001: 2018 (OHS&S) certified Laboratory  
 WATER LAB, HEAD OFFICE, VATAVARAN BHAWAN, PATIALA, PUNJAB  
 Email: wlab201@pccbnl.com, Website: www.pccbonline.org

**TEST REPORT**

Test Report Code : GW-284-288  
 Report Issue Date : 27.1.2025  
 Report Sent to (Name & Address) : RO Hoshiarpur  
 Date of Sample Receipt : 08.01.2025  
 Sample Registration No. : GW-284-288  
 Sample Description : Ground Water Sample  
 Type of Sample : Grab  
 Analysis Duration : 08.01.2025 to 27.01.2025  
 Sampling Location : As per data sheet (GW 284-288)  
 Name of Sample Collecting Officer : Er. Deepak Chadha EE, Er. Jatinder Kumar, AEE, Dr. Harpreet Singh, ASO, Sh. Baldeep Singh, JSO & Sh. Jadish Parshul Meena, CPCB  
 Sampling Protocol : IS 17614 (Part-10): 2021  
 Sample Quantity : 8.0 L  
 Sample Packing : Plastic Bottle

*Handwritten notes:*  
 Agg. 230  
 22/1/25  
 3/2/2025  
 20/1/25  
 22/1/25  
 23/1/25

**Test Results**  
(Water Quality Analysis)

Sl. No.	Test Parameters	Units	Result					Test Method
			284	285	286	287	288	
1	pH Value	-	7.0	7.4	7.2	7.0	7.0	IS 3025 Part-11
2	Total Suspended Solids (TSS)	mg/l	12	<5	<5	<5	24	IS 3025 Part-17
3	Total Dissolved Solids (TDS)	mg/l	681	348	499	1083	622	IS 3025 Part-16
4	Chemical Oxygen Demand (COD)	mg/l	14	<5	<5	8	10	IS 3025 Part-58
5	Bio-Chemical Oxygen Demand (BOD)	mg/l	<5	<5	<5	<5	<5	IS 3025 Part-44
6	Chloride	mg/l	26	21	17	56	39	IS 3025 Part-32
7	Sulphate	mg/l	46	30	40	78	56	IS 3025 Part-24, Sec 1
8	Electrical Conductivity	µs/cm	1122	643	788	1961	1033	IS 3025 Part-14
9	Total Hardness	mg/l	204	123	161	252	201	IS 3025 Part-21
10	Total Alkalinity	mg/l	125	104	121	168	172	IS 3025 Part-23
11	Turbidity	NTU	<1	<1	<1	<1	<1	IS 3025 Part-10
12	Calcium	mg/l	62	39	51	76	59	Alpha-24 <sup>th</sup> Ed 3500-Ca B
13	Magnesium	mg/l	12	6	8	15	13	Alpha-24 <sup>th</sup> Ed 3500-Mg B
14	Nickel	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	IS 3025, 3111-B
15	Copper	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	IS 3025, 3111
16	Zinc	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	IS 3025, 3111
17	Iron	mg/l	<0.1	4.80	0.14	1.10	6.35	IS 3025, 3111
18	Total Chrome	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	IS 3025, 3111

Note: Pesticides results will be shared separately as GC section under renovation.  
 4) BDL means below method Detection Limit.  
 5) Results from AOX from the area SAsub Trapar camp will be shared

\*\*\*--End of Report--\*\*\*

*Signature*  
 Name, Designation & Signature of Analyst

*Signature*  
 Name & Designation of Authorized Signatory  
 Avtar Singh  
 Scientific Officer  
 (Seal & Signature)



## PUNJAB POLLUTION CONTROL BOARD CENTRAL LABORATORY

NABL Accredited & ISO 45001: 2018 (OH&S) certified Laboratory  
WATER LAB, HEAD OFFICE, VATAVARAN BHAVAN, PATIALA, PUNJAB  
Email: [spclab2010@gmail.com](mailto:spclab2010@gmail.com); Website: [www.ppcbonline.org](http://www.ppcbonline.org)

### TEST REPORT

Test Report Code	: GW-284-288
Report Issue Date	: 27.1.2025
Report Sent to (Name & Address)	: GW-284-288
Date of Sample Receipt	: 22.1.2025
Sample Registration No.	: RO Hoshiarpur
Sample Description	: 08.01.2025
Type of Sample	: GW-284-288
Analysis Duration	: Ground Water Sample
Sampling Location	: Grab
	: 08.01.2025 to 27.01.2025
Name of Sample Collecting Officer	: As per data sheet (GW 284-288)
Sampling Protocol	: 07.01.2025
Sample Quantity	: Er. Deepak Chadha EE, Er. Jatinder Kumar, AEE. Dr. Harpreet Singh, ASO, Sh. Baldeep Singh, JSO & Sh. Jadish Parshul Meena, CPCB
	: IS 17614 (Part-10): 2021
	: 8.0 L
Sample Packing	: Plastic Bottle

### Test Results (Water Quality Analysis)

Sr. No.	Test Parameters	Units	Result				
			284	285	286	287	288
1	Nitrate as NO <sub>3</sub>	mg/l	0.3	BDL	0.4	0.5	0.3
2	TKN	mg/l	BDL	BDL	BDL	BDL	BDL
3	Ammonical Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL
4	Total Fixed Solids	mg/l	582	299	427	927	530
5	Flouride	mg/l	0.4	0.2	0.3	0.7	0.6
6	Boron	mg/l	BDL	BDL	BDL	BDL	BDL
7	Potassium	mg/l	10	5	7	14	11
8	Phosphate	mg/l	0.1	0.1	0.2	0.3	0.3
9	Phenolic Compound	mg/l	BDL	BDL	BDL	BDL	BDL
10	SAR	-	2.16	1.50	1.82	2.52	2.09
11	RSC	-	0.46	0.86	0.82	0.85	1.43
12	Color	Co-pt Scale	BDL	BDL	BDL	BDL	BDL
13	Sodium	mg/l	71	38	53	92	68
14	Arsenic	mg/l	BDL	BDL	BDL	BDL	BDL
15	Mercury	mg/l	BDL	BDL	BDL	BDL	BDL
16	Cadmium	mg/l	BDL	BDL	BDL	BDL	BDL
17	Lead	mg/l	BDL	BDL	BDL	BDL	BDL

Note: Pesticides results will be shared separately as GC section under renovation.  
BDL means below method Detection Limit.

2) Results of AOX from nls SAI Labs Jalandhar campus are awaited.  
3) Results of AOX from nls SAI Labs Jalandhar campus are awaited.  
\*\*\*---End of Report---\*\*

Encl. No: 4487-89

A copy of the above is forwarded to the:-

- The Chief Environmental Engineer (Water), Punjab Pollution Control Board, Ludhiana.
- The Senior Environment Engineer, Punjab Pollution Control Board, Zonal Office-Jalandhar.
- The Environment Engineer, Punjab Pollution Control Board, Regional Office-Hoshiarpur.

*Praveen*  
27/1/25  
Name, Designation & Signature of Analyst

Dt. 27/1/25

*M. Singh*  
27/1/25  
Name & Designation of Authorized Signatory

Avtar Singh  
Scientific Officer  
(Seal & Signature)



Sample Location Code 284 - From tube well of Kulwinder Singh Resident of Chak Alla Baksh, adjacent sugar mill near plantation area.



Sample Location Code 285 - From the tube well of Guru Baksh Singh Village Chak alla Baksh upstream of the unit premise away about 500 m as reference sample Upstream



Sample Location Code 286 - From the tube well of Sh. Jasvir Singh Village Madinpur opposite gate of unit Near bagasse yard area



Sample Location Code 287- From the bore well of residential house near Satish Kirana Store ward No 12 Village Chak Alla Baksh



Sample Location Code 288 - From the bore well of adjacent sugar mill downstream of the sugar mill