

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PB AT NEW DELHI**

**Appeal NO. 40 OF 2024**

IN THE MATTER OF:

PUNJAB DYERS ASSOCIATION,  
TAJPUR ROAD  
LUDHIANA

...APPELLANT

VERSUS

PUNJAB POLLUTION CONTROL BOARD  
AND OTERS

...RESPONDENT

**INDEX**

| SL. NO. | PARTICULARS                            | PAGE NO. |
|---------|--|----------|
| 1       | <b>Annexure 1</b>                      |          |
|         | Copy of Consent to Establish           | 3-8      |
| 2.      | <b>Annexure 2</b>                      |          |
|         | Photo showing location of CETP and STP |          |
|         | Out fall in to Buddha Nala             | 9        |
| 3.      | <b>Annexure 3</b>                      |          |
|         | CETP Performance Evaluation Report     |          |
|         | by IIT, Roorkee                        | 10-18    |
| 4.      | <b>Annexure 4</b>                      |          |
|         | Soil Deptt Report                      | 19       |
| 5.      | <b>Annexure 5</b>                      |          |
|         | Consent to Establish for STP           | 20-27    |
| 6.      | <b>Annexure 6</b>                      |          |

|    |  |       |
|----|--|-------|
|    | Date of Commissioning of STP                                     | 28    |
| 7. | <b>Annexure 7</b>  |       |
|    | Notified Effluent standards for Textile,<br>dyeing industry      | 29    |
| 8. | <b>Annexure 8</b>  |       |
|    | Letter showing decision for 200 cusec<br>Water in to Bhddha Nala | 30-32 |
| 9. | Table showing justification of additional<br>Documents           | 33    |

**NEW DELHI**  
**DATED: 20.12.2024.**

**FILED BY:**



**I K Kapila**  
**Advocate**

**D 082, DLF Capital Greens, New Delhi**  
**[kapilaik@yahoo.co.in](mailto:kapilaik@yahoo.co.in), 9582063272**



## PUNJAB POLLUTION CONTROL BOARD

Zonal Office-II, E-648-B, Backside CICU Office, Phase-5, Focal Point, Ludhiana

Website:- www.ppcb.gov.in

|   |                       |                           |
|---|-----------------------|---------------------------|
| Office Dispatch No :                    | Registered/Speed Post | Date:                     |
| Industry Registration ID: R14LDH3985785 |                       | Application No : 16675058 |

To,

**Vivek Kumar Jindal**  
 Regd.off: Shree Balaji Processors, Tajpur Road, Opp. Central Jail  
 Ludhiana, Punjab-141010

Subject: Grant of "Consent to Establish"(NOC) for an industrial unit u/s 25 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981.

With reference to your application for obtaining fresh 'Consent to Establish'(NOC) an industrial plant u/s 25 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981, you are, hereby, permitted to establish the industrial unit to discharge the effluent(s) & emission(s) arising out of your premises subject to the Terms and Conditions as specified in this Certificate.

### 1. Particulars of Consent to Establish (NOC) granted to the Industry

|                    |                              |
|--------------------|------------------------------|
| Certificate No.    | CTE/Fresh/LDH3/2021/16675058 |
| Date of issue :    | 16/11/2021                   |
| Date of expiry :   | 31/03/2022                   |
| Certificate Type : | Fresh                        |

### 2. Particulars of the Industry

|  |   |
|--|---|
| Name & Designation of the Applicant              | Vivek Kuamr Jindal , (Director)   |
| Address of Industrial premises                   | Punjab Dyers Association,<br>Regd Off: Shree Balaji Processors, Tajpur Road, Opp. Central Jail, Ludhiana,<br>Ludhiana West, Ludhiana Iii-141007 |
| Capital Investment of the Industry               | 5552.0 lakhs  |
| Category of Industry                             | Red   |
| Type of Industry                                 | Common effluent treatment plant.  |
| Scale of the Industry                            | Large   |
| Office District                                  | Ludhiana Iii  |
| Consent Fee Details                              | Rs. 1,26,000/- vide UTR. no.<br>N265211645676226 dated 22.09.2021   |
| Raw Materials (Name with quantity per day)       | Untreated trade effluent from dyeing units<br>(CETP of capacity 50 MLD)   |
| Products (Name with quantity per day)            | Treated trade effluent (CETP of capacity 50 MLD)  |
| By-Products, if any,(Name with quantity per day) | -   |
| Details of the machinery and processes           | As per application no. 16675058   |

"This is computer generated document from OCMMS by PPCB"

Punjab Dyers Association, Regd Off: Shree Balaji Processors, Tajpur Road, Opp. Central Jail, Ludhiana, Ludhiana West, Ludhiana Iii, 141007

|   |   |
|---|---|
| <b>Details of the Effluent Treatment Plant</b>  | <i>Common Effluent Treatment Plant (CETP) of capacity 50 MLD, the Components of CETP to be installed are as under:-</i><br>a) Screening<br>b) Collection Tank<br>c) Primary Unit Inlet<br>d) Fine Screening<br>e) Grit Chamber<br>f) Equalization & neutralization tank<br>g) Clariflocculator<br>h) SBR<br>i) Clarifier<br>j) Filter press<br>k) Final Outlet<br>For the treatment of waste water from the cluster of textiles dyeing industries located at Tajpur Road in Ludhiana @ 50 MLD and domestic effluent @ 15 KLD. |
| <b>Mode of Disposal of Effluent</b>   | <i>Treated trade effluent into Budha Nallah (Temporary permission)</i>  |
| <b>Standards to be achieved under Water (Prevention &amp; Control of Pollution) Act, 1974</b> | <i>As prescribed by CPCB/MoEF&amp;CC/PPCB (as applicable) and as amended from time to time.</i>   |
| <b>Sources of emissions and type of pollutants</b>  | <i>2 no. DG sets of capacity 1010 KVA each: SPM/SO<sub>x</sub>/NO<sub>x</sub>.</i>  |
| <b>Mode of disposal of emissions with stack height</b>  | <i>2 no. DG sets of capacity 1010 KVA each : Stack height H (in meter) shall be worked out according to the 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>Quantity of fuel required in TPD</b>   | <i>2 no. DG sets of capacity 1010 KVA each : HSD @ 100 Ltr/day</i>  |
| <b>Type of Air Pollution Control Devices to be installed</b>                                  | <i>2 no. DG sets of capacity 1010 KVA each : Canopy on each of DG set.</i>  |
| <b>Standars to be achieved under Air (Prevention &amp; Control of Pollution) Act, 1981</b>    | <i>As prescribed by CPCB/MoEF&amp;CC/PPCB (as applicable) and as amended from time to time.</i>   |



16/11/2021

**(Gursharan Dass Garg)**  
**Environmental Engineer**

For &amp; 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:

*"This is computer generated document from OCMMS by PPCB"**Punjab Dyers Association, Regd Off: Shree Balaji Processors, Tajpur Road, Opp. Central Jail, Ludhiana, Ludhiana West, Ludhiana Iii, 141007*

The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana. He is requested to ensure the compliance of conditions of consent to establish (NOC) granted to the SPV under the Water Act, 1974 and Air Act, 1981.



16/11/2021

**(Gursharan Dass Garg)**  
**Environmental Engineer**

*For & on behalf*

*of*

**(Punjab Pollution Control Board)**



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

*Punjab Dyers Association, Regd Off: Shree Balaji Processors, Tajpur Road, Opp. Central Jail, Ludhiana, Ludhiana West, Ludhiana Iii, 141007*

*Page3*

**A. GENERAL CONDITIONS**

1. The industry shall apply for consent of the Board as required under the provision of Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981 & Authorization under Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016, two months before the commissioning of the industry.
2. The industry shall provide adequate arrangements for fighting the accidental leakages/ discharge of any air pollutant/gas/liquids from the vessels, mechanical equipments etc. which are likely to cause environmental pollution.
3. The Industry shall apply for further extension in the validity of the CTE atleast two months before the expiry of this CTE, if applicable.
4. The industry shall comply with any other conditions laid down or directions issued by the Board under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981 from time to time.
5. The project has been approved by the Board from pollution angle and the industry shall obtain the approval of site from other concerned departments, if need be.
6. The industry shall get its building plans approved under the provisions of section 3-A of Punjab Factory Rules, 1952.
7. The industry shall put up display board indicating the Environment data in the prescribed format at the main entrance gate.
8. 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 ( $D_e$ ) shall be calculated from the following equation to determine upstream, downstream distance:-  

$$D_e = 2 LW / (L+W)$$
 Where L= length in mts. W= Width in mts.
  - ii) The sampling port shall be 7 to 10 cm in diameter
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<br>$H = 14 Q_g^{0.3}$ or<br>$H = 74 (Q_p)^{0.24}$<br>Where $Q_g$ = Quantity of SO <sub>2</sub> in Kg/hr.<br>$Q_p$ = 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 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 industry shall put up canopy on its DG sets and also provide stack of adequate height as per norms prescribed by the Board and shall ensure the compliance of instructions issued by the Board vide office order no. Admin./SA-2/F.No.783/2011/448 dated 8/6/2010.
11. The industry shall put up canopy on its DG sets and also provide stack of adequate height as per norms prescribed by the Board and shall ensure the compliance of instructions issued by the Board vide office order no. Admin./SA-2/F.No.783/2011/448 dated 8/6/2010.
  - (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.
12. The industry shall provide flow meters at the source of water supply, at the outlet of effluent treatment plant and shall maintain the record of the daily reading and submit the same to the concerned Regional Office by the 5th day of the following month.
13. 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.
14. The pollution control devices shall be interlocked with the manufacturing process of the industry.
15. The Board reserves the right to revoke this "consent to establish" (NOC) at any time, in case the industry is found violating any of the conditions of this "consent to establish" and/or the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 as amended from time to time.
16. The industry shall plant minimum of three suitable varieties of trees at the density of not less than 1000 trees per acre along the boundary of the industrial premises.
17. 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.
18. The consent does not authorize or approve the construction of any physical structures or facilities for undertaking of any work in any natural watercourse.
19. Nothing in this NOC 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.
20. 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.
21. The industry shall ensure that no water pollution problem is created in the area due to discharge of effluents from its industrial premises.

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

*Punjab Dyers Association, Regd Off: Shree Balaji Processors, Tajpur Road, Opp. Central Jail, Ludhiana, Ludhiana West, Ludhiana Iii, 141007*

22. The industry shall comply with the conditions imposed if any by the SEIAA/MOEF in the Environmental Clearance granted to it as required under EIA notification dated 14/9/06, if applicable.
23. 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.
24. The industry shall obtain and submit Insurance cover as required under the Public Liability Insurance Act, 1991.
25. The industry shall submit a site emergency plan approved by the Chief Inspector of Factories, Punjab as applicable.
26. The industry shall provide proper and adequate air pollution control arrangements for control emission from its coal/fuel handling area, if applicable.
27. 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
28. 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 so as to prevent any pollutants from such materials from entering into natural water.
29. The industry shall submit a detailed plan showing therein, the distribution system for conveying waste-waters for application on land for irrigation along with the crop pattern to be adopted throughout the year.
30. The industry shall not irrigate the vegetable crops with the treated effluents which are used/ consumed as raw.
31. The industry shall ensure that its production capacity & quantity of trade effluent do not exceed the quantity mentioned in the NOC and shall not carry out any expansion without the prior permission/NOC of the Board.
32. All amendments/revisions made by the Board in the emission/stack height standards shall be applicable to the industry from the date of such amendments/revisions.
33. The industry shall not cause any nuisance/traffic hazard in vicinity of the area.
34. 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.
35. The industry shall ensure that there will not be significant visible dust emissions beyond the property line.
36. 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, if applicable.
37. 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



16/11/2021

**(Gursharan Dass Garg)**  
**Environmental Engineer**

*For & on behalf*  
*of*

**(Punjab Pollution Control Board)**

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

*Punjab Dyers Association, Regd Off: Shree Balaji Processors, Tajpur Road, Opp. Central Jail, Ludhiana, Ludhiana West, Ludhiana Iii, 141007*

**B. SPECIAL CONDITIONS**

1. The SPV shall get feasibility report for discharge of treated effluent onto land for irrigation from PRSC or any other agency within 3 months.
2. The SPV shall establish a well visible, highlighted and approachable disposal point with a well established platform and sampling arrangements.
3. The SPV shall obtain necessary permissions from the Municipal Corporation, Ludhiana and the drainage department, if needed.
4. The SPV shall provide CCTV camera arrangement at the outlet to monitor it 24x7.
5. The SPV shall install online continuous effluent monitoring station (OCEMS) to check the quality of treated waste water to be discharged into the Budha Nallah at all the times and get it connected with the PPCB/CPCB server.
6. The SPV will adopt the proper procedure for the utilization of Grant-in-Aid received from the Govt. of India and the Govt. of Punjab for setting up of CETPs being provided for the dyeing industries at Ludhiana as prescribed by the Board vide Office Order no. 27 dated 12-07-2017.
7. The SPV shall comply with all the conditions imposed while granting the Environmental Clearance under EIA Notification, 2006 (amended from time to time) by the Ministry of Environment, Forest & Climate Change, Govt. of India, New Delhi.
8. The SPV shall follow the guidelines prescribed by the Central Government in the scheme under which grant-inaid has to be extended or any other guidelines prescribed by the State Government or Punjab Pollution Control Board or any other concerned agency.
9. The SPV shall provide dedicated conveyance system for the transportation of effluent from the individual units to the CETP site at their own level and Punjab Pollution Control Board or Government will not be responsible for providing such sewerage system/conveyance line.
10. The SPV to obtain all necessary permissions from the concerned departments required for the execution of project. Any violation for not obtaining the requisite permissions shall be the sole responsibility of the SPV and the Board will not be responsible for any such lapse.
11. The SPV shall comply with the inlet effluent standards as per detailed project report (DPR).



16/11/2021

**(Gursharan Dass Garg)**  
**Environmental Engineer**

*For & on behalf*

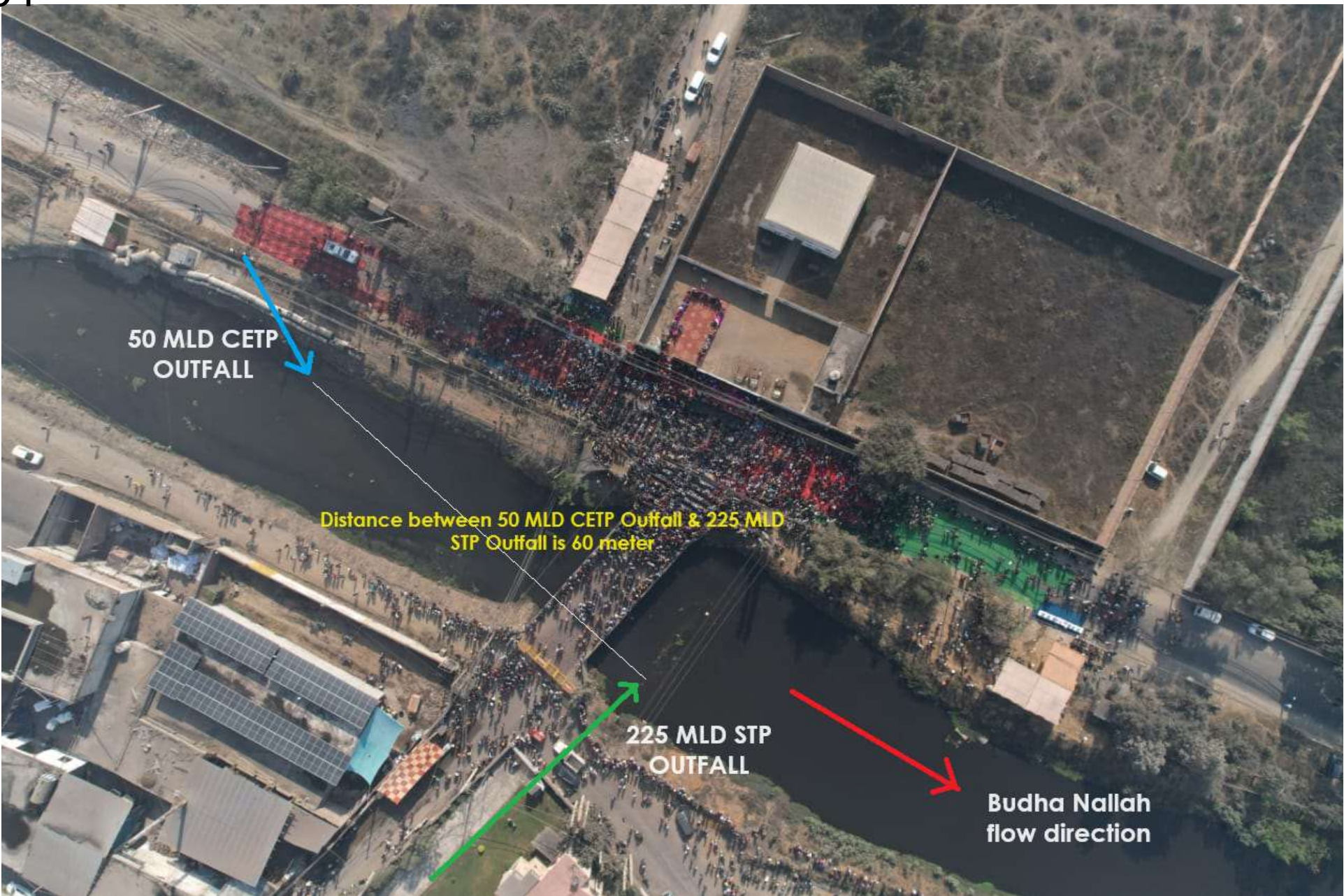
*of*

**(Punjab Pollution Control Board)**

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

*Punjab Dyers Association, Regd Off: Shree Balaji Processors, Tajpur Road, Opp. Central Jail, Ludhiana, Ludhiana West, Ludhiana Iii, 141007*

*Page7*



# **PERFORMANCE ASSESSMENT OF** **50MLD CETP, LUDHIANA**



**DEPARTMENT OF CIVIL ENGINEERING**  
**INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**  
**DECEMBER, 2024**

**EXECUTIVE SUMMARY**

The performance assessment of the 50MLD capacity CETP at Tajpur road Ludhiana was conducted 19<sup>th</sup> November 2024. Based on grab sampling, the effluent quality is good in terms of BOD (Effluent BOD-27 mg/L, 88 % removal), TSS (Effluent SS 30.0 mg/L, 78 % removal), COD (110 mg/L, 87% removal), Ammonia nitrogen (as  $\text{NH}_4^+$ -N) concentration reduced to 5.8 mg/L from 16.1 mg/L, partial nitrification might be due to DO level low in aeration tank (1.06mg/L); effluent phosphorus reduced to 1.8 mg/L from 3.4 mg/L, indicating effective chemical phosphorus removal in coagulation-flocculation unit. The CETP was operating 5352, 5414, 5324, 5364 mg/L MLSS, and 2222, 2182, 2180, 2208 mg/L MLVSS in all SBR tanks. The sludge has good settling characteristics with SVI ~28, 22, 18.7 & 14.9 mL/g. OUR/SOUR of aeration tanks sludge was also conducted onsite of SBR tank 3 & 4 and found to be 21.8 and 23.6  $\text{mgO}_2/\text{h}$  and 10.0 & 10.6  $\text{mgO}_2\text{g}^{-1}\text{VSS.h}$ . SAR, RSC and phenolic compounds in treated effluent was found to be 12.3, 10.3 meq/L and 5.0 mg/L respectively. Bio-assay test of treated effluent was also conducted and found that, 100% survival of fishes in 100% treated effluent after 72 hours was observed.

**Dr. Absar A. Kazmi**

Professor

Deptt. of Civil Engineering

Indian Institute of Technology Roorkee

ROORKEE-247 667 (U.K.) INDIA

**Dr. A. A. Kazmi**19<sup>th</sup> Dec. 2024

## PROCESS DESCRIPTION

Common effluent treatment plant (CETP) is designed for 50 MLD average daily flow (Fig. 1), Located at Tajpur road Ludhiana. The CETP is based on SBR based technology prior to pre-treatment followed by disinfection by chlorination. This plant treat wastewater generated from 102 hosieries and dying industries.

This CETP comprises of following units

- 1) Primary treatment comprises of screening, oil and grease removal system, and equalization cum neutralization tank, Flash Mixing, Flocculation and lamella Clarification.
- 2) Secondary treatment comprises of aeration tank operating at SBR technology.
- 3) Tertiary treatment comprises Chlorination in CCT tank.



**Figure 1: View of 50MLD CETP**

Keeping in mind, the influent quality for CETP and the quality of treated effluent, the treatment methodology is such that it will take care of all the wastewater generated by the various hosieries and dying industries wastewater.

## 2. MONITORING, SAMPLING AND ANALYSIS

### 2.1. Sample Collection

Wastewater samples were collected from the various locations as follows:

- Influent of CETP
- EQT
- PT Outlet
- SBR tank Outlet
- CCT Outlet

### 2.2. Sample Analysis

Sample location and relevant parameters are listed below in Table 1 and 2.

**Table 1: Physico-chemical and microbiological parameters (APHA, 2005)**

| Parameters                      | Sampling points |               |     |           |            |            |
|---------------------------------|-----------------|---------------|-----|-----------|------------|------------|
|                                 | Units           | CETP Influent | EQT | PT Outlet | SBR Outlet | CCT Outlet |
| pH                              | -               | √             | √   | √         | √          | √          |
| BOD                             | mg/L            | √             | √   | √         | √          | √          |
| COD                             | mg/L            | √             | √   | √         | √          | √          |
| TSS                             | mg/L            | √             | √   | √         | √          | √          |
| VSS                             | mg/L            | √             | √   | √         | √          | √          |
| TDS                             | mg/L            | √             | √   | √         | √          | √          |
| NH <sub>4</sub> <sup>+</sup> -N | mg/L            | √             | √   | √         | √          | √          |
| NO <sub>3</sub> <sup>-</sup> -N | mg/L            | √             | √   | √         | √          | √          |
| SAR                             | meq/L           | √             | √   | √         | √          | √          |
| RSC                             | meq/L           | √             | √   | √         | √          | √          |
| Phenolic compounds              | mg/L            | √             | √   | √         | √          | √          |
| Heavy metals                    | mg/L            | √             | √   | √         | √          | √          |
| Fecal coliforms                 | MPN/100 mL      | √             |     |           |            | √          |
| Bio-assay test                  |                 |               |     |           |            | √          |

**Table 2: Operational parameters**

| Parameters | Unit                | SBR tanks |
|------------|---------------------|-----------|
| Flow       | m <sup>3</sup> /d   | √         |
| DO         | mg/L                | √         |
| MLSS       | mg/L                | √         |
| MLVSS      | mg/L                | √         |
| SV30       | mg/L                | √         |
| SVI        | mL/g                | √         |
| SOUR       | mgO <sub>2</sub> /h | √         |

### 3.0 RESULTS AND DISCUSSION

The results obtained from the analysis of different physico-chemical and microbiological examination, operational parameters and heavy metals of samples from different locations of the CETP is summarized in Table 3 & 4.

**Table 3: Summary of results obtained from different location of CETP**

| Parameters                            | Sampling points |          |      |           |            |            |                        | MOEFCC (1986) discharge standards (Inland, surface water) |
|---------------------------------------|-----------------|----------|------|-----------|------------|------------|------------------------|---|
|                                       | Units           | Influent | EQT  | PT Outlet | SBR Outlet | CCT Outlet | Removal Efficiency (%) |   |
| pH                                    | -               | 7.55     | 7.1  | 10.85     | 7.82       | 7.43       |                        | 5.5-9.0   |
| BOD                                   | mg/L            | 226      | 226  | 102       | 31         | 27         | 88                     | 30  |
| COD                                   | mg/L            | 879      | 768  | 440       | 132        | 110        | 87                     | 250   |
| TSS                                   | mg/L            | 135      | 154  | 64        | 50         | 30         | 78                     | 100   |
| TDS                                   | mg/L            | 1990     | 1806 | 1936      | 1800       | 1766       | -                      | 2100  |
| NH <sub>4</sub> -N                    | mg/L            | 16.1     | 16.3 | 12        | 8          | 5.8        | 64                     | 50  |
| NO <sub>3</sub> -N                    | mg/L            | 15.2     | 19.2 | 6         | 4.5        | 4.4        | -                      | -   |
| Total Phosphorus (PO <sub>4</sub> -P) | mg/L            | 3.4      | 4.3  | 1.2       | 1.6        | 1.8        | 47                     | 5   |
| Sulphide                              | mg/L            | 6.4      | 7.5  | 4.3       | 2.2        | 1.7        | 73                     | 2.8   |
| SAR                                   | -               | 14.97    | 16.7 | 18.9      | 16.33      | 12.3       | -                      |   |
| RSC                                   | meq/L           | 13.2     | 12.4 | 13.6      | 10.5       | 10.3       | -                      |   |
| Phenolic compound                     | mg/L            | 8.6      | 13.4 | 7.2       | 5.5        | 5.0        | 40                     | 5.0   |
| Fecal coliforms                       | MPN /100 mL     |          | 920  |           |            | 280        | -                      |   |

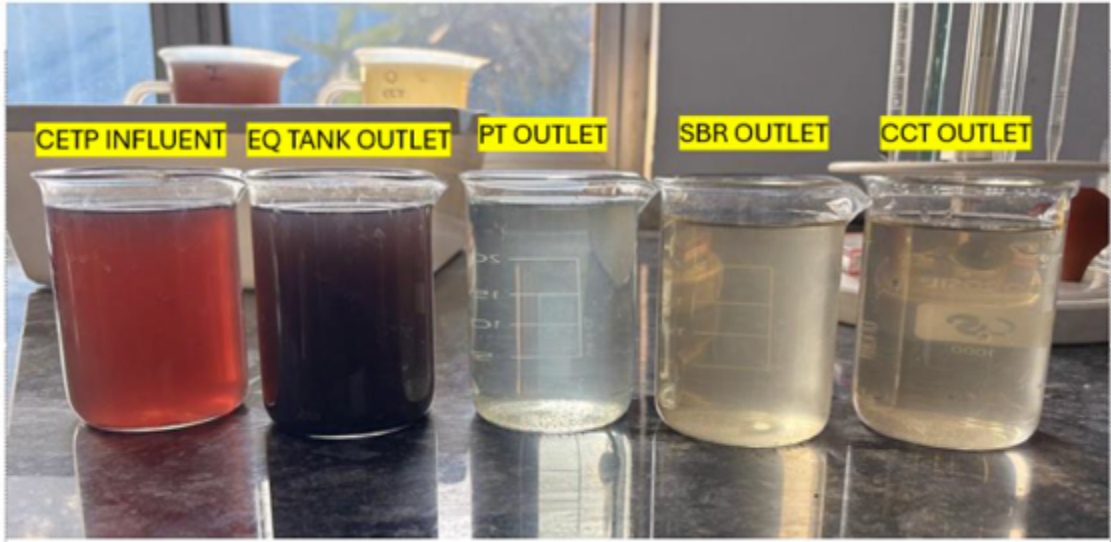
**In addition, Bioassay results shows that 100% survival of fishes in 100% treated effluent after 72 Hours.**

Table 4: Operational parameters

| Parameters | Unit                                   | SBR tank 1 | SBR tank 2 | SBR tank 3 | SBR tank 4 |
|------------|--|------------|------------|------------|------------|
| MLSS       | mg/L                                   | 5352       | 5414,      | 5324       | 5364       |
| MLVSS      | mg/L                                   | 2222,      | 2182,      | 2180,      | 2208       |
| SV30       | mg/L                                   | 150        | 120        | 100        | 80         |
| SVI        | mL/g                                   | 28.0       | 22.0       | 18.7       | 14.9       |
| OUR        | mgO <sub>2</sub> /h                    | -          | -          | 21.8       | 23.6       |
| SOUR       | mgO <sub>2</sub> g <sup>-1</sup> VSS.h | -          | -          | 10.0       | 10.6       |

Table 5: Operational parameters

| Heavy Metals | Unit | Influent | EQT  | PT Outlet | SBR Outlet | CCT Outlet | Removal Efficiency (%) | CETP Discharge standards MOEF CC |
|--------------|------|----------|------|-----------|------------|------------|------------------------|----------------------------------|
| <b>B</b>     | mg/L | 5.3      | 4.50 | 3.8       | 2.9        | 1.6        | 70                     | 2.0                              |
| <b>Zn</b>    | mg/L | 8.2      | 5.9  | 7         | 3.8        | 1.3        | 84                     | 5.0                              |
| <b>Cd</b>    | mg/L | 0.13     | 0.12 | 0.1       | 0.1        | BDL        | 100                    | 0.05                             |
| <b>Cu</b>    | mg/L | 0.2      | 0.4  | 0         | BDL        | BDL        | 100                    | 3.0                              |
| <b>Ni</b>    | mg/L | 0.24     | 0.15 | 0.18      | 0.12       | 0.12       | 50                     | 3.0                              |
| <b>Fe</b>    | mg/L | 5.1      | 5.1  | 3         | 3.1        | 2.1        | 59                     | 3.0                              |
| <b>Pb</b>    | mg/L | 0.2      | 0.1  | 0.2       | 0.1        | 0.1        | 50                     | 0.1                              |
| <b>Cr</b>    | mg/L | 0.6      | 1.2  | 0.2       | 0.2        | 0.1        | 83                     | 2.0                              |



**Figure 2; Photographs of Influent, EQ tank outlet, PT outlet, SBR outlet and CCT outlet**



Figure 3; Sampling and onsite testing

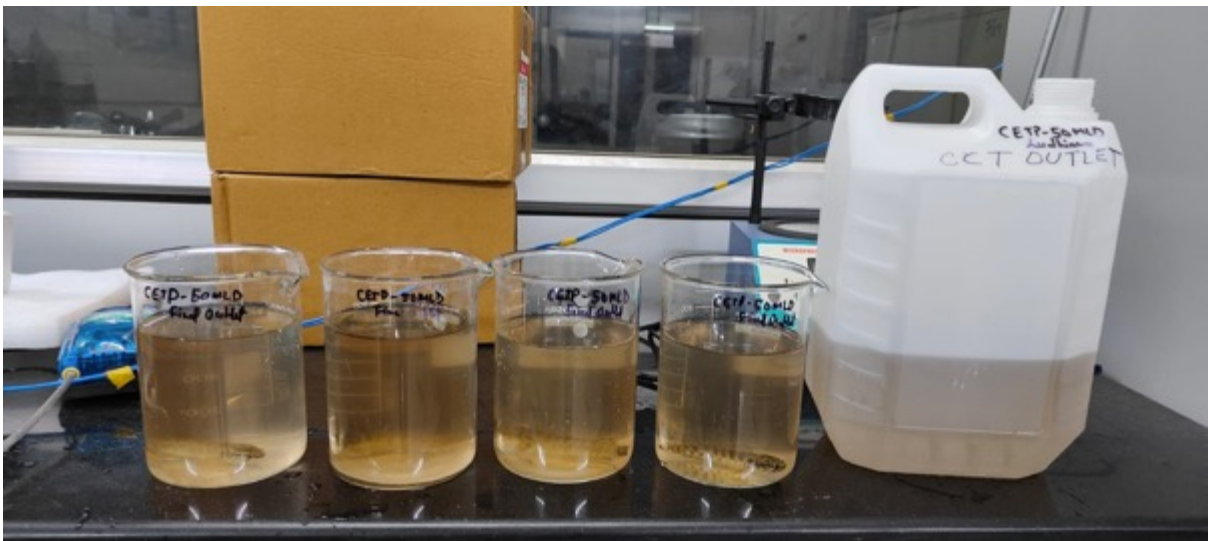


Figure 4; Bio-assay test demonstration



Punjab Agricultural University, Ludhiana



## Department of Soil Science

### Water Testing Laboratory



Water test report

|             |                          |               |                   |
|-------------|--------------------------|---------------|-------------------|
| Name        | Punjab Dyres Association | Father's name | Village           |
| Post office |                          | Block         | District Ludhiana |

#### Result Sample No. 1

| Laboratory number | Sample No.: | Depth | Milli-equivalent per liter |             |          | Calcium + Magnesium | The rest is sodium carbonate. | Conductivity | Water category |
|-------------------|-------------|-------|----------------------------|-------------|----------|---------------------|-------------------------------|--------------|----------------|
|                   |             |       | Carbonate                  | Bicarbonate | Chloride |                     |                               |              |                |
| 773               | 3971        |       | Nile                       | 5.2         | 20.4     | 7.2                 | -2.00                         | 3230         | 2(a)           |

#### Recommendation Sample No. 1

Water can be used for sandy soil. For irrigation of heavy soil, use it mixed with canal water.



## PUNJAB POLLUTION CONTROL BOARD

Zonal Office-II, E-648-B, Backside CICU Office, Phase-5, Focal Point, Ludhiana

Website:- www.ppcb.gov.in

|  |                              |                                  |
|--|------------------------------|----------------------------------|
| <b>Office Dispatch No :</b>                    | <b>Registered/Speed Post</b> | <b>Date:</b>                     |
| <b>Industry Registration ID:</b> R22LDH1833528 |                              | <b>Application No :</b> 19651339 |

**To,**  
**Parul Goyal**  
**Gaushala Road Gopal Marg**  
**Mansa, Mansa-151502**

**Subject: Grant of "Consent to Establish"(NOC) for an industrial unit u/s 25 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981.**

With reference to your application for obtaining fresh 'Consent to Establish'(NOC) an industrial plant u/s 25 of Water (Prevention & Control of Pollution) Act, 1974 and u/s 21 of Air (Prevention & Control of Pollution) Act, 1981, you are, hereby, permitted to establish the industrial unit to discharge the effluent(s) & emission(s) arising out of your premises subject to the Terms and Conditions as specified in this Certificate.

### 1. Particulars of Consent to Establish (NOC) granted to the Industry

|                           |                                     |
|---------------------------|-------------------------------------|
| <b>Certificate No.</b>    | <i>CTE/Fresh/LDH3/2022/19651339</i> |
| <b>Date of issue :</b>    | <i>21/11/2022</i>                   |
| <b>Date of expiry :</b>   | <i>20/11/2023</i>                   |
| <b>Certificate Type :</b> | <i>Fresh</i>                        |

### 2. Particulars of the Industry

|   |   |
|---|---|
| <b>Name &amp; Designation of the Applicant</b>    | <i>Parul Goyal, (Executive Engineer)</i>  |
| <b>Address of Industrial premises</b>             | <i>225 Mld Sewage Treatment Plant Jamalpur Ludhiana,<br/>225 Mld Sewage Treatment Plant Jamalpur, Ludhiana ,<br/>Jagroan, Ludhiana Iii-141008</i> |
| <b>Capital Investment of the Industry</b>         | <i>29000.5 lakhs</i>  |
| <b>Category of Industry</b>                       | <i>Red</i>  |
| <b>Type of Industry</b>                           | <i>1081-Sewage Treatment Plants</i>   |
| <b>Scale of the Industry</b>                      | <i>Large</i>  |
| <b>Office District</b>                            | <i>Ludhiana Iii</i>   |
| <b>Consent Fee Details</b>                        | <i>Rs. 1,00,000/- vide UTR No. IBKL220808133028 dated 08.08.2022 as NOC fee</i>   |
| <b>Raw Materials (Name with quantity per day)</b> | <i>Sewerage Treatment Plant (STP) of capacity 225 MLD</i>   |
| <b>Products (Name with quantity per day)</b>      | <i>Sewerage Treatment Plant (STP) of capacity 225 MLD</i>   |

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

*225 Mld Sewage Treatment Plant Jamalpur Ludhiana, 225 Mld Sewage Treatment Plant Jamalpur, Ludhiana , Jagroan, Ludhiana Iii, 141008*

|   |  |
|---|--|
| <b>By-Products, if any,(Name with quantity per day)</b>                                       | -  |
| <b>Details of the machinery and processes</b>   | <i>As per application no. 19651339</i>   |
| <b>Details of the Effluent Treatment Plant</b>  | <i>Sewerage Treatment Plant (STP) of capacity 225 MLD at Village Jamalpur, Ludhiana for the treatment of the domestic effluent generated in its catchment.</i> |
| <b>Mode of Disposal of Effluent</b>   | <i>Into Budha Nallah after treatment in STP</i>  |
| <b>Standards to be achieved under Water (Prevention &amp; Control of Pollution) Act, 1974</b> | <i>As prescribed by CPCB/MoEF&amp;CC/PPCB (as applicable) and as amended from time to time.</i>  |
| <b>Sources of emissions and type of pollutants</b>  | <i>One DG set of capacity 1250 KVA</i>   |
| <b>Mode of disposal of emissions with stack height</b>  | <i>One DG set of capacity 1250 KVA : Adequate stack height as per condition no. 9 of this NOC</i>  |
| <b>Quantity of fuel required in TPD</b>   | <i>One DG set of capacity 1250 KVA : HSD as per requirement</i>  |
| <b>Type of Air Pollution Control Devices to be installed</b>                                  | <i>One DG set of capacity 1250 KVA : Canopy</i>  |
| <b>Standars to be achieved under Air (Prevention &amp; Control of Pollution) Act, 1981</b>    | <i>As prescribed by CPCB/MoEF&amp;CC/PPCB (as applicable) and as amended from time to time.</i>  |



*Satyajeet Attri*

21/11/2022

**( Satyajeet Singh Attri )  
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:

The Environmental Engineer, Punjab Pollution Control Board, Regional Office-3, Ludhiana. He is requested to ensure the compliance of conditions of consent to establish (NOC) granted to it under the Water Act, 1974 and Air Act, 1981.

*Satyajeet Attri*

21/11/2022

**( Satyajeet Singh Attri )  
Environmental Engineer**

*For & on behalf*

*of*

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

*225 Mld Sewage Treatment Plant Jamalpur Ludhiana, 225 Mld Sewage Treatment Plant Jamalpur, Ludhiana, Jagroan, Ludhiana Iii, 141008*



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

**A. GENERAL CONDITIONS**

1. The industry shall apply for consent of the Board as required under the provision of Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981 & Authorization under Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016, two months before the commissioning of the industry.
2. The industry shall provide adequate arrangements for fighting the accidental leakages/ discharge of any air pollutant/gas/liquids from the vessels, mechanical equipments etc. which are likely to cause environmental pollution.
3. The Industry shall apply for further extension in the validity of the CTE atleast two months before the expiry of this CTE, if applicable.
4. The industry shall comply with any other conditions laid down or directions issued by the Board under the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act,1981 from time to time.
5. The project has been approved by the Board from pollution angle and the industry shall obtain the approval of site from other concerned departments, if need be.
6. The industry shall get its building plans approved under the provisions of section 3-A of Punjab Factory Rules, 1952.
7. The industry shall put up display board indicating the Environment data in the prescribed format at the main entrance gate.
8. 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 ( $D_e$ ) shall be calculated from the following equation to determine upstream, downstream distance:-  

$$D_e = 2 LW / (L+W)$$
 Where L= length in mts. W= Width in mts.
  - ii) The sampling port shall be 7 to 10 cm in diameter
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<br>$H = 14 Q_g^{0.3}$ or<br>$H = 74 (Q_p)^{0.24}$<br>Where $Q_g$ = Quantity of SO <sub>2</sub> in Kg/hr.<br>$Q_p$ = 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 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. |

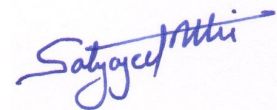
**For higher KVA rating stack height H (in meter) shall be worked out according to the formula:**

$$H = h + 0.2 (KVA)^{0.5}$$

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

10. The industry shall put up canopy on its DG sets and also provide stack of adequate height as per norms prescribed by the Board and shall ensure the compliance of instructions issued by the Board vide office order no. Admin./SA-2/F.No.783/2011/448 dated 8/6/2010.
11. The industry shall put up canopy on its DG sets and also provide stack of adequate height as per norms prescribed by the Board and shall ensure the compliance of instructions issued by the Board vide office order no. Admin./SA-2/F.No.783/2011/448 dated 8/6/2010.
  - (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.
12. The industry shall provide flow meters at the source of water supply, at the outlet of effluent treatment plant and shall maintain the record of the daily reading and submit the same to the concerned Regional Office by the 5th day of the following month.
13. 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.
14. The pollution control devices shall be interlocked with the manufacturing process of the industry.
15. The Board reserves the right to revoke this "consent to establish" (NOC) at any time, in case the industry is found violating any of the conditions of this "consent to establish" and/or the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 as amended from time to time.
16. The industry shall plant minimum of three suitable varieties of trees at the density of not less than 1000 trees per acre along the boundary of the industrial premises.
17. 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.
18. The consent does not authorize or approve the construction of any physical structures or facilities for undertaking of any work in any natural watercourse.
19. Nothing in this NOC 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.
20. 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.
21. The industry shall ensure that no water pollution problem is created in the area due to discharge of effluents from its industrial premises.

22. The industry shall comply with the conditions imposed if any by the SEIAA/MOEF in the Environmental Clearance granted to it as required under EIA notification dated 14/9/06, if applicable.
23. 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.
24. The industry shall obtain and submit Insurance cover as required under the Public Liability Insurance Act, 1991.
25. The industry shall submit a site emergency plan approved by the Chief Inspector of Factories, Punjab as applicable.
26. The industry shall provide proper and adequate air pollution control arrangements for control emission from its coal/fuel handling area, if applicable.
27. 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
28. 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 so as to prevent any pollutants from such materials from entering into natural water.
29. The industry shall submit a detailed plan showing therein, the distribution system for conveying waste-waters for application on land for irrigation along with the crop pattern to be adopted throughout the year.
30. The industry shall not irrigate the vegetable crops with the treated effluents which are used/ consumed as raw.
31. The industry shall ensure that its production capacity & quantity of trade effluent do not exceed the quantity mentioned in the NOC and shall not carry out any expansion without the prior permission/NOC of the Board.
32. All amendments/revisions made by the Board in the emission/stack height standards shall be applicable to the industry from the date of such amendments/revisions.
33. The industry shall not cause any nuisance/traffic hazard in vicinity of the area.
34. 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.
35. The industry shall ensure that there will not be significant visible dust emissions beyond the property line.
36. 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, if applicable.
37. 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



21/11/2022

**( Satyajeet Singh Attri )  
Environmental Engineer**

*For & on behalf*

*of*

**(Punjab Pollution Control Board)**

**B. SPECIAL CONDITIONS**

1. The Punjab Municipal Corporation, Act 1976 "all Public Sewers and all drains, and sewers, drains culverts and water Courses in or under any Public Street; or constructed by or for the Corporation alongside any Public Street and all works materials and things appertaining there to falls under the purview and jurisdiction of Municipal Corporation of the area." As such alongwith PWSSB, Municipal Corporation, Ludhiana is also responsible for installation commissioning of STP 225 MLD STP.
2. The Punjab Water Supply and Sewerage Board has applied for obtaining the consent to establish (NOC) of the Board under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 for establishment of Sewage Treatment Plant of capacity 225 MLD at Jamalpur, District Ludhiana on the directions of the Municipal Corporation, Ludhiana. The Municipal Corporation, Ludhiana being the owner and custodian of all sewers of Ludhiana is also liable for installation commissioning of STP 225 MLD STP.
3. The various works of civil and technical nature can be accomplished by Municipal Corporation, Ludhiana, through various agencies, private contractors, government undertakings but the primary responsibilities and liabilities lies with Municipal Corporation, Ludhiana. As such, the Municipal Corporation, Ludhiana shall also be responsible for installation, commissioning and operation of STP, so as to achieve the desired prescribed standards.
4. The Municipal Corporation, Ludhiana and PWSSB shall adhere to prescribed standards & deadlines for conform to the prescribed standards & for providing proper and adequate disposal arrangements, as per timelines given in the Action Plan for clean River Sutlej.
5. The Municipal Corporation, Ludhiana and PWSSB will coordinate with Department of Soil and Water Conservation for providing the adequate arrangements for using the treated sewage of STP for onto land for plantation.



*Satyjeet Attri*

21/11/2022

**( Satyajeet Singh Attri )  
Environmental Engineer**

*For & on behalf*

*of*

**(Punjab Pollution Control Board)**

PUNJAB WATER SUPPLY AND SEWERAGE DIVISION, LUDHIANA

eepwssdivn2ldh@gmail.com

To

M/s Khilari Infrastructure Private Limited (Lead Partner)  
 Khilari Infrastructure Pvt. Ltd. & GVPR Engineers Ltd.- Joint Venture.  
 101-104, Prabhat Centre Annex, Sector-1A, CBD Belapur,  
 Navi Mumbai -400614 (ssk.kipl2005@gmail.com).

No: 4882

Date: 31/8/2023

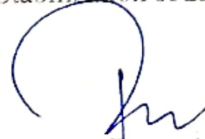
Subject: Stabilization of 225MLS STP Jamalpur Ludhiana

Project: Construction of Sewage Treatment Plants (STPs), Pumping Stations, ETPs for Project Dairy Complexes, Rehabilitation of existing STPs & Main Pumping Stations for abatement of pollution in Buddha Nallah, Ludhiana including Operation & Maintenance for a period of 10 years (on DBOT basis) under AMRUT scheme. - Contract Agreement No: - 17 of 2020-21.

Reference: Your office letter no KIPL-GVPR/Ludhiana/910/22-23 dated 05.05.2023

It is intimated that as per approval given by Superintending Engineer PWSSC Ludhiana letter no PWSSC-L/23/G/1057 dated 30.08.2023, Stabilization of 225 MLD STP Jamalpur Ludhiana is considered wef 01.05.2023.

DA/ As Above.



Executive Engineer  
 Pb. W/S & Sew. Division,  
 Ludhiana.

Endst. No.

Date:

A copy of above said is forwarded to the followings for information and necessary action please.

1. The Superintending Engineer, Punjab W/S & Sew. Circle, Ludhiana (sepwsscldh@gmail.com).  
 Wrt his office letter no PWSSC-L/23/G/1057 dated 30.08.2023
2. Sub Divisional Engineer, Pb. W/S & Sew. Sub Division No.-1, Ludhiana

Executive Engineer  
 Pb. W/S & Sew. Division,  
 Ludhiana.

|                   |  |                          |   |
|-------------------|--|--------------------------|---|
| <sup>1</sup> [5B. | <b>Thermal Power Plant (water consumption limit) using sea water</b> | <b>Water Consumption</b> | Items I to III in column 4 in serial number 5A above shall not be applicable to the Thermal Power Plants using sea water] |
|-------------------|--|--------------------------|---|

## STANDARDS FOR DISCHARGE OF EFFLUENTS FROM TEXTILE INDUSTRY

| S. No.  | Industry   | Parameter  | Standards (applicable for all modes of disposal*)                   |
|---|--|--|---|
| 1   | 2  | 3  | 4   |
| <sup>2</sup> [6   | All Integrated textile units, units of Cotton/Woolen /Carpets/Polyester, Units having Printing/ Dyeing/Bleaching process or manufacturing and Garment units. | <b>Treated Effluents</b>   | Maximum concentration values in mg/l except for pH, colour, and SAR |
|   |  | pH   | 6.5 to 8.5  |
|   |  | Suspended Solids   | 100   |
|   |  | Colour, P.C.U. (Platinum Cobalt Units)                           | 150   |
|   |  | Bio-Chemical Oxygen Demand [3 days at 27 °C] (BOD <sub>3</sub> ) | 30  |
|   |  | Oil and Grease   | 10  |
|   |  | Chemical Oxygen Demand (COD)                                     | 250   |
|   |  | Total Chromium as (Cr)   | 2.0   |
|   |  | Sulphide (as S)  | 2.0   |
|   |  | Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)         | 1.0   |
|   |  | Total Dissolved Solids, Inorganic (TDS)                          | 2100**  |
|   |  | Sodium Absorption Ratio (SAR)                                    | 26**  |
|   |  | Ammonical Nitrogen (as N)  | 50  |
| <b>Notes:</b>   |  |  |   |
| 1. *In case of direct disposal into rivers and lakes, the Central Pollution Control Board (CPCB) or State Pollution Control Board/Pollution Control Committees (SPCBs/PCCs) may specify more stringent standards depending upon the quality of the recipient system.  |  |  |   |
| 2. **Standards for TDS and SAR shall not be applicable in case of marine disposal through proper marine outfall.  |  |  |   |
| 3. The treated effluent shall be allowed to be discharged in the ambient environment only after exhausting options for reuse in industrial process/irrigation in order to minimise freshwater usage.  |  |  |   |
| 4. Any textile unit attached with the Common Effluent Treatment Plant (CETP) shall achieve the inlet and treated effluent quality standards as specified in serial number 55 of Schedule-I to the Environment (Protection) Rules, 1986 and shall also be jointly and severally responsible for ensuring compliance. |  |  |   |
| 5. The standalone Micro, Small and Medium Enterprises (MSMEs) as per the MSME Development Act, 2006 shall meet the values specified above.  |  |  |   |

<sup>1</sup> Inserted by G.S.R. 593(E) dated 28th June, 2018 serial no. 5A and their entries relating thereto

<sup>2</sup> Subs. By G.S.R. 978(E) dated 10<sup>th</sup> October, 2016 for Serial No. 6 and their entries relating thereto



# Punjab Pollution Control Board

Regional Office-III

Savitri Complex-1, (Dada Motors), Third Floor, Dholewal Chowk, G.T. Road, Ludhiana

ppcbro3@yahoo.com

No./ R.O/LDH-III/ <sup>200</sup> .....

Date <sup>17/01/2022</sup> .....

To

The Senior Environmental Engineer,  
Punjab Pollution Control Board,  
Zonal Office-II, Ludhiana.

**Sub: Regarding release of 200 cusec fresh water into Buddha Nallah.**

**Ref:- Your office letter no. 260 dated 06.01.2022, 283 dated 06.01.2022.**

In reference to the above, it is intimated that as per the Action Plan for Clean River Sutlej, 200 cusec of fresh water was to be released into Buddha Nallah from Sirhind Canal for the rejuvenation of Buddha Nallah. The project was completed and fresh water was released into the Buddha Nallah on 22.08.2021.

The Executive Engineer, Department of Water Resources, Drainage Division, Ludhiana was requested vide this office letter no. 5791 dated 11.11.2021 to submit the details of quantity of total fresh water released into the Buddha Nallah since the commencement of the project. The Executive Engineer, Department of Water Resources, Drainage Division, Ludhiana vide letter no. 7997-98/21-WC/BNC dated 30.11.2021 submitted that the project was commenced on 22.08.2021 but due to prevailing flood season at that time the gates were closed to prevent any breach or mishap in the Neelon Drain or Buddha Nallah. The supply was resumed on 01.10.2021 after end of flood season on 30.09.2021. The supply was kept low due to erosion problem occurred in Neelon Drain in flood season due to heavy rain in catchment area of the drain as well as low discharge in Sirhind Canal. The daily discharge from 01.10.2021 to 22.11.2021 was submitted by the Department of Water Resources, Drainage Division, Ludhiana (Copy enclosed).

The monitoring of water quality of Buddha Nallah is carried out on monthly basis at different locations. The various point sources contributing polluted waste water into Buddha Nallah are located downstream of Bhamian Pully (bridge over Buddha Nallah at Bhamian). The Buddha Nallah merges with river Sutlej near Village-Walipur.

The variation of pollution load before and after release of 200 cusecs fresh water into Buddha Nallah at Bhamian Pully and at Walipur is as under:

| Downstream of Bhamian pully           |  |          |          |          |   |         |         |          |
|---------------------------------------|--|----------|----------|----------|---|---------|---------|----------|
| Date of sample collection             | Results before release of 200 cusec fresh water in Buddha Nallah |          |          | Average  | Results after release of 200 cusec fresh water in Buddha Nallah |         |         | Average  |
|                                       | 1-7-21   | 25-8-21  | 2-9-21   |          | 2-10-21   | 1-11-21 | 2-12-21 |          |
| pH                                    | 7.8  | 7.5      | 6.9      | 7.4      | 7.1   | 7       | 7.3     | 7.1      |
| COD mg/l                              | 161  | 48       | 38       | 82.3     | 104   | 100     | 92      | 98.7     |
| BOD mg/l                              | 44   | 10       | 8        | 20.7     | 24  | 26      | 19      | 23.0     |
| F.Coli MPN/100 ml                     | 49000  | 110000   | 70000    | 76333.3  | 270000  | 230000  | 1300000 | 600000.0 |
| Point source Buddha Nallah at Walipur |  |          |          |          |   |         |         |          |
| Date of sample collection             | Results before release of 200 cusec fresh water in Buddha Nallah |          |          | Average  | Results after release of 200 cusec fresh water in Buddha Nallah |         |         | Average  |
|                                       | 1-7-21   | 25-8-21  | 2-9-21   |          | 2-10-21   | 1-11-21 | 2-12-21 |          |
| pH                                    | 7.7  | 7.1      | 7.2      | 7.3      | 7   | 6.9     | 7.3     | 7.1      |
| COD mg/l                              | 384  | 408      | 368      | 387      | 404   | 496     | 432     | 444      |
| BOD mg/l                              | 110  | 120      | 120      | 117      | 130   | 150     | 140     | 140      |
| F.Coli MPN/100 ml                     | 5400000  | 92000000 | 17000000 | 38133333 | 7000000   | 3300000 | 2300000 | 4200000  |

**Analysis of water quality of Buddha Nallah at Walipur  
(samples collected under NWMP)**

| Before release of 200 cusecs fresh water |          |                   |          |          |          |
|--|----------|-------------------|----------|----------|----------|
| Date of receipt in lab                   | BOD mg/l | F. Coli MPN/100ml | COD mg/l | Turb NTU | TSS mg/l |
| 14.07.2021                               | 110      | 13,00,000         | 381      | 190      | 348      |
| 17.08.2021                               | 105      | 49,00,000         | 373      | 160      | 318      |
| 15.09.2021                               | 120      | 79,00,000         | 382      | 160      | 298      |
| After release of 200 cusecs fresh water  |          |                   |          |          |          |
| 13.10.2021                               | 140      | 70,00,000         | 460      | 170      | 464      |
| 17.11.2021                               | 130      | 1,10,00,000       | 404      | 170      | 364      |
| 13.12.2021                               | 115      | 70,00,000         | 360      | 180      | 320      |

**Conclusion:-** As per information received from the Drainage Department, Ludhiana, release of 200 cusecs fresh water has been started fully in December, 2021. A slight increase has been observed in the organic parameter may be due to the flushing out of sludge deposited in the Buddha Nallah with the release of fresh water. The effect of 200 cusecs fresh water may become apparent in the next 2- 3 months.

This is for your kind information, please.

DA/as above

17/01/22  
Environmental Engineer

Date: 17/01/2022

Endst. No 201

A copy of the above is forwarded to the Chief Environmental Engineer,, Punjab Pollution Control Board, Ludhiana for information, please.

17/01/22  
Environmental Engineer

7997-98/21-22/Env.c

Pl discuss

Date 30/11/2021

Environmental Engineer  
Punjab Pollution Control Board,  
Regional office -III, Savitri complex-1  
(Dada Motors), Third Floor, Dholewal Chowk  
G.T Road, Ludhiana

AE-E-I

17/12/21

9233  
17/12/21

Subject:- Regarding release of 200 cusec fresh water into Budha Nallah.

Reference:- Your Office letter No. R.O/LDH-III/5791 Regd. Date 11/11/2021

It is intimated that the project to release 200 cusecs water in Budha Nallah was commenced on 22/08/2021 but due to prevailing flood season at that time the gates were closed to prevent any breach mishap in the Neelon Drain or Budha Nallah. The supply was resumed on 01/10/2021 after end of flood season on 30/09/2021.

The supply was kept low due to erosion problem occurred in Neelon Drain in flood season due to heavy rain in catchment area of drain as well as low discharge in Sirhind Canal. The daily discharge from 01/10/2021 till date is attached here with.

DA/As above

Executive Engineer  
Ludhiana Drainage Division  
Ludhiana

COPY:- Sub Divisional officer Ludhiana Drainage Sub/Div. Ldh, for information w.r.t his letter no. 385/Budha Nallah Dated.20/11/2021

TABLE SHOWING RELEVANCE OF ADDITIONAL DOCUMENTS

| S No | Additional document | Relevance of additional documents to Appeal No 40 /2024  |
|------|---------------------|--|
| 1    | Annexure 1          | It shows that fresh consent to establish is granted by PPCB with temporary permission to discharge CETP treated effluent in to Buddha Nala ( Temporary) and that MoEFCC/ CPCB/ PPCB prescribed effluent standards to to be complied.   |
| 2    | Annexure 2          | It shows that effluent from CETP is discharged in to Buddha Nala at about 60 m U/S of discharge point for effluent from 225 mld STP.   |
| 3    | Annexure 3          | The Performance evaluation study report bt IIT, Roorkee that shows plant is functioning satisfactorily and meeting MoEFCC notified CETP effluent standards   |
| 4    | Annexure 4          | Test Report shows that treated CETP effluent can be used for sandy soil but for irrigation of heavy soil it needs to be used with canal water.   |
| 5    | Annexure 5          | It shows that 225 mld STP has been granted Consent to establish in year 2022 to discharge treated effluent meeting MoEFCC/ CPCB/PPCB prescribed standards and that MCL need to coordinate with Deptt of Soil and Water Conservation for providing adequate arrangement for using the treated sewage for on to land for plantation. |
| 6    | Annexure 6          | It shows that 225 mld STP was commissioned in May 2023.  |
| 7    | Annexure 7          | It shows MoEFCC notified effluent standards to be complied by stand alone/ large Textile, dyeing units and textile dyeing units not connected to CETP.   |
| 8    | Annexure 8          | It shows that Govt has taken decision in 2021 to release 200 cusec water in to Buddha Nala.  |