

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 3280
TO BE ANSWERED ON 16.12.2024

Pollution in Budha Nullah, Punjab

3280. SHRI AMRINDER SINGH RAJA WARRING:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether the Government is aware that the 14-km-long Buddha Nullah in Ludhiana, carrying domestic and industrial waste, discharges into the Sutlej at Walipur, and the river water is used for drinking purposes by thousands of families in the Malwa region;
- (b) whether the Government has taken cognizance of reports indicating that despite being treated by Common Effluent Treatment Plants (CETPs), the discharge from several dyeing units remains highly toxic and non-compliant with environmental norms;
- (c) whether it is true that, contrary to the conditions of the Environmental Clearance (EC), three CETPs are reportedly discharging treated effluent into Buddha Nullah, violating the stipulated disposal conditions;
- (d) whether the Central Pollution Control Board (CPCB) followed up on its August 12, 2024 directions to the Punjab Pollution Control Board (PPCB) regarding extreme water pollution in Buddha Nullah;
- (e) if so, the details thereof, including action against dyeing units and environmental compensation;
- (f) whether any Action-Taken Report has been submitted in this regard, if so, the details thereof; and
- (g) the steps being taken by the Government to ensure compliance with environmental norms and prevent further pollution of Buddha Nullah and the Sutlej River?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) to (g):

Central Pollution Control Board (CPCB) has carried out inspection and monitoring of four (04) Common Effluent Treatment Plant (CETPs) located in Ludhiana to verify the compliance of discharge norms during April 22nd -23rd, 2024. It was observed that out of 04 CETPs, 01 CETP of 500 KLD, at Plot No. D-260-261, Phase-VIII, Focal Point, Ludhiana has installed Zero Liquid Discharge (ZLD) and remaining following three (03) CETPs were found exceeding the discharge standards.

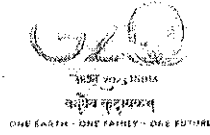
Sr. No.	1	2	3
CETP designed capacity with location	CETP 40 MLD (Focal point Module) Tajpur Road Near Central Jail, Ludhiana (Punjab)	CETP 50 MLD Tajpur Road, Near CentralJail, Ludhiana Punjab.	CETP 15 MLD, Bahadur Ke Road, District Ludhiana (Punjab).
Industrial Area	Dyeing Industrial Area Focal Point (Phase 1 to Phase 8)	Dyeing industries Tajpur Road Ludhiana	Textile & Knitwear Dyeing units Industrial Zone Bahadur Ke Road, Ludhiana
Treatment system of CETP	Physico-chemical followed by biological (SBR) process	Physico-chemical followed by biological (SBR) process	Physico-chemical followed by biological (SBR) process
Status of operation during inspection	Operational	Operational	Operational
OCEMS Installed	Yes	Yes	Yes
Compliance Status	Non- compliance w.r.t BOD, COD and Chloride, sulphide parameters.	Non- compliance w.r.t BOD, COD and chloride parameters.	Non- compliance w.r.t BOD, COD, Chloride and Sulphide.
Final discharge	Buddha Nallah	Buddha Nallah	Buddha Nallah

CPCB, in exercise of powers conferred under section 18 (I) (b) of the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention and control of pollution) Act, 1981, issued directions dated 12.08.2024 to Punjab Pollution Control Board (PPCB) to take appropriate action including imposing Environmental Compensation (EC). The copy of the direction dated 12.08.2024 is at **Annexure I**.

Further, the measures taken by the Government for prevention and control of water pollution, inter-alia, include the following:

- Govt. of India enacted the Water (Prevention and Control of Pollution) Act, 1974 and the Environment (Protection) Act, 1986 for protection of environment including water bodies.
- The Central and State Pollution Control Boards (SPCBs) / Pollution Control Pollution Committees (PCCS) are implementing the provisions of both the Water (Prevention and Control of Pollution) Act, 1974 and the Environment (Protection) Act, 1986 to prevent and control pollution of aquatic resources.
- SPCBs / PCCs have been directed under Section 18(1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 to direct concerned agencies in the State/UT to develop infrastructure for sewage treatment.
- Regulation of industrial Pollution is implemented through various provisions of the Water (Prevention and Control of Pollution) Act, 1974 under Consent mechanism by the respective SPCB / PCC.
- Government of India stipulated General discharge standards and industry specific effluent discharge standards under Environment (Protection) Rules, 1986 with an aim to prevent pollution in the water bodies.

- The Online Continuous Effluent Monitoring Systems (OCEMS) are installed by 17 categories of industries and Grossly Polluting Industries (GPIs) in the country as per directives issued by CPCB. This initiative provides real-time information on effluent quality, enabling the identification of non-complying units and the implementation of corrective actions.
- CPCB is also periodically issuing directions to all the concerned departments in the States for management of sewage and waste water in accordance with the provisions notified under the Environment (Protection) Rules, 1986 and for ensuring proper operation of existing STPs, Common Effluent Treatment Plants (CETPs) and industrial pollution control, under Section 18 (1)(b) of the Water (Prevention and Control of Pollution) Act, 1974 as well as under Section 5 of the Environment (Protection) Act, 1986.
- CPCB has prepared guidelines for conservation and Zero Liquid Discharge (ZLD) in feasible industrial sectors, along with guidelines for the utilization of treated effluent in irrigation. Treated wastewater can be reused in various industrial sectors to reduce dependency on freshwater, enhance sustainability, and promote effective water resource management.
- For rejuvenation of Polluted River Stretches (PRS) identified in 2018, action plans have been prepared by River Rejuvenation Committee (RRC) constituted by the respective State Government/ UT Administration, under the overall supervision and coordination of Principal Secretary, Environment of the concerned State/ Union Territory for bringing all the polluted river stretches identified by CPCB fit for bathing purposes (i.e. BOD < 3 mg/L and FC < 500 MPN/100 mL).
- Prepared action plans covers aspects such as Source control (Municipal sewage management, Industrial pollution control, Waste management), River catchment/Basin Management (Adoption of good irrigation practices, Utilization of treated sewage, Ground water recharge aspects), Flood Plain Zone protection and its management (Setting up of bio-diversity parks, Removal of encroachments, Rain water harvesting, Plantation on both sides of the river), Ecological/Environmental Flow (E-Flow) and Watershed management.



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

Speed Post

CPCB/IPC-VII/CETP-Ludhiana/

34/11

Dated 12.08.2024

To

The Member Secretary
Punjab Pollution Control Board
Vatavaran Bhawan, Nabha Road
Patiala Punjab

Subject: Directions under section 18(1)(b) of the Water (Prevention and Control of Pollution) Act, 1974 regarding non-compliance status of four CETPs namely A. 40 MLD CETP- near Central Jail, Tajpur Road (Focal Point Module), Ludhiana, Punjab, B. 50 MLD CETP Tajpur-Rahon Road Cluster, Ludhiana, near Central Jail, Tajpur Road, Ludhiana, Punjab, C. 15 MLD CETP- Bahadurke Road, Ludhiana, Punjab and D. 500 KLD CETP, Plot No. D-260-261, Phase-VIII, Focal Point, Ludhiana, Punjab.

WHEREAS, amongst others, under Section 17 of the Water (Prevention & Control of Pollution) Act, 1974, one of the functions of the State Pollution Control Board (SPCB), (or Pollution Control Committee for Union Territories) constituted under the Water (Prevention & Control of Pollution) Act, 1974 is to plan a comprehensive programme for prevention, control or abatement of pollution of streams and wells located in the State and to secure the execution therefore; and

WHEREAS, amongst others, under Section 16 of the Water (Prevention & Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, one of the functions of the Central Pollution Control Board (CPCB), constituted under the Water (Prevention & Control of Pollution) Act, 1974 is to coordinate activities of the State Pollution Control Boards and Pollution Control Committees and to provide technical assistance and guidance to SPCBs/PCCs; and

WHEREAS, amongst others, under Section 16 of the Water (Prevention & Control of Pollution) Act, 1974, one of the functions of the Central Pollution Control Board (CPCB), is to promote cleanliness of streams and wells in different areas of the State; and

WHEREAS, the Central Government has notified the standards for discharge of environmental pollutants from various categories of industries, Common Effluent Treatment Plants (CETPs) and Sewage Treatment Plants (STPs) under the Environment (Protection) Act, 1986 and the rules framed there under; and

केन्द्रीय प्रदूषण नियंत्रण बोर्ड

निर्गत

दिनांक

12/08/24

परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032

दूरभाष/Tel: 43102030, 22305792, वेबसाइट/Website : www.epbc.nic.in

WHEREAS, there is a need to inculcate the habit of self-monitoring within the CETPs for complying with the prescribed standards and this can be achieved by installing Online Continuous Effluent Monitoring System (OCEMS); and

WHEREAS, four CETPs namely (i) CETP - 40 MLD near Central Jail, Tajpur Road (Focal Point Module), Ludhiana, Punjab, (ii) CETP - 50 MLD Tajpur-Rahon Road Cluster, Ludhiana, near Central Jail, Tajpur Road, Ludhiana, Punjab, (iii) CETP - 15 MLD Bahadurke Road, Ludhiana, Punjab and (iv) CETP - 500 KLD CETP, Plot No. D-260-261, Phase-VIII, Focal Point, Ludhiana, Punjab were inspected by CPCB officials along with officials of Punjab PCB during 22.04.2024 and 23.04.2024 based on the communication of the Central Monitoring Committee (CMC) with CPCB. Following major observations were made:

A. CETP - 40 MLD, near Central Jail, Tajpur Road (Focal Point Module), Ludhiana, Punjab (herein after referred as CETP):

- I. During the visit on 22.04.2024, the CETP was found operational with the flow rate of 29 MLD. The CETP receives effluent through dedicated underground pipeline and the treatment is based on Sequential Batch Reactor (SBR) technology. It was informed that the CETP is discharging the treated effluent into Budha Nallah (which meets River Sutlej) through underground pipeline from CETP. However, as per the Environmental Clearance (EC) issued by MoEF&CC to the CETP dated 03.05.2013, "the treated wastewater will be used for irrigation" and it is also mentioned in the special terms & conditions that, "*There shall be no discharge into Budha Nallah*".
- II. The consent under the Air Act, 1981 is valid upto 29.12.2024 and the Authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 is valid upto 19.12.2024 for the operation of 40 MLD CETP. However, the consent under the Water Act, 1974 was valid till 15.05.2023. The CETP has applied for renewal of consent to PPCB on 07.09.2023.
- III. It was reported that 72 Dyeing and Printing units have obtained membership from CETP. It was also informed by the CETP operator that inlet norms for CETP is not prescribed in the consent.
- IV. Grab samples were collected from the CETP during monitoring. The analysis result of samples collected from CETP outlet reveals that BOD:54 mg/l (Standard: 30 mg/l), COD:262 mg/l (Standard:250 mg/l), Chloride:2284 mg/l (Standard: 1000 mg/l) and Sulphide:2.4 mg/L (Standard: 2 mg/l) exceeds the notified effluent discharge standards for CETP. Remaining monitored parameters are within the prescribed standards.

- V. Grab sample were also collected from the Sequential Batch Reactor (SBR) tank for MLSS & MLVSS. The analysis result reveals that the concentration of MLSS: 4661 mg/l (Designed range: 5000-7000 mg/l) and concentration of MLVSS: 3000 mg/l (Designed range: 3500-4200 mg/l) are less than the designed range, which indicates the poor operation of the SBR.
- VI. The CETP has installed Online Continuous Effluent Monitoring System (OCEMS) at the final outlet of treated effluent for the parameters- pH, TSS, COD, BOD with connectivity to PPCB & CPCB servers. During the visit, the OCEMS was found operational and variation in OCEMS reading compared with the monitored results was also reported which indicates the improper working / validation / calibration of OCEMS system.
- VII. The CETP has provided sludge storage facility and obtained membership from M/s Re-sustainability Limited (M/s Ramky Enviro Engineers Limited). The CETP had disposed 3517.235 MT sludge (as per the log book records) during the year 2023-24.

B. CETP - 50 MLD, Tajpur-Rahon Road Cluster, Ludhiana, near Central Jail, Tajpur Road, Ludhiana, Punjab.

- I. During the visit on 22.04.2024, the CETP was found operational with the flow rate of 46 MLD. The CETP receives effluent through dedicated underground pipeline and the treatment is based on Sequential Batch Reactor (SBR) technology. It was informed that as per the consent, the CETP is permitted to discharge the treated effluent into Budha Nallah (which meets River Sutlej) through underground pipeline from CETP. However, as per the EC issued by MoEF&CC to the CETP dated 03.05.2013, "the treated wastewater will be used for irrigation" and it is also mentioned in the special terms & conditions that, "*There shall be no discharge into Budha Nallah*".
- II. The consent under the Air Act, 1981 is valid upto 31.03.2026 for the operation of 50 MLD CETP. However, the Authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 was valid till 04.12.2023 and the consent under the Water Act, 1974 was valid till 22.08.2023. The CETP has applied for renewal of consent and authorization to PPCB on 31.08.2023.
- III. It was reported that 110 Dyeing and Printing units have obtained membership from CETP. It was also informed by the CETP operator that inlet norms for CETP is not prescribed in the consent.
- IV. Grab samples were collected from the CETP during monitoring. The analysis result of samples collected from CETP outlet reveals that BOD: 128 mg/l (Standard: 30

mg/l), COD: 382 mg/l (Standard: 250 mg/l) and Chloride: 1713 mg/l (Standard: 1000 mg/l) exceeds the notified effluent discharge standards for CETP. Remaining monitored parameters are within the prescribed standards.

- V. Grab sample were also collected from the Sequential Batch Reactor (SBR) tank for MLSS & MLVSS. The analysis result reveals that the concentration of MLSS: 300 mg/l (Designed value: 5000 mg/l) and concentration of MLVSS: 215 mg/l (Designed value: 4000 mg/l) are less than the designed values, which indicates the poor operation of the SBR.
- VI. The CETP has installed Online Continuous Effluent Monitoring System (OCEMS) at the final outlet of treated wastewater for the parameters- pH, TSS, COD, BOD with connectivity to PPCB & CPCB servers. During the visit, the OCEMS was found operational and variation in OCEMS reading compared with the monitored results was also reported which indicates the improper working / validation / calibration of OCEMS system.
- VII. During the visit, it was observed that the CETP has provided sludge storage facility and obtained membership from M/s Re-sustainability Limited (M/s Ramky Enviro Engineers Limited) for disposal of sludge. The CETP had disposed 1597.20 MT sludge during the year 2023-24 through TSD and further, as per log book records, about 173 MT was stored in the premises.

C. CETP - 15 MLD CETP- Bahadurke Road, Ludhiana, Punjab.

- I. During the visit on 22.04.2024, the CETP was found operational with the flow rate of 11.26 MLD. The CETP receives effluent through dedicated underground pipeline and the treatment is based on Sequential Batch Reactor (SBR) technology. It was informed that the CETP is discharging the treated effluent into Budha Nallah (which meets River Sutlej) through underground pipeline from the CETP. However, as per EC issued by MoEF&CC on 08.12.2014, the CETP is required to establish a Zero Liquid Discharge system.
- II. The consent under the Air Act, 1981 is valid upto 31.03.2025 for the operation of 15 MLD CETP. However, the consent under the Water Act, 1974 was valid till 04.01.2023 and the Authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 was valid till 04.10.2022 for which the CETP has applied for renewal to PPCB.
- III. It was reported that 36 Dyeing/Printing/washing units have obtained membership from CETP and connected to the CETP at the time of visit. It was also informed by the CETP operator that inlet norms for CETP is not prescribed in the consent.

- IV. Grab samples were collected from the CETP during monitoring. The analysis results of sample collected from CETP outlet reveals that BOD: 243 mg/l (Standard: 30 mg/l), COD: 587 mg/l (Standard: 250 mg/l), Chloride: 1904 mg/l (Standard: 1000 mg/l) and Sulphide: 16 mg/l (Standard: 2 mg/l) exceeds the notified effluent discharge standards for CETP. Remaining monitored parameters are within the prescribed standards.
- V. Grab samples were collected from the Sequential Batch Reactor (SBR) tank for MLSS & MLVSS. The sample analysis results reveals that the concentration of MLSS: 2639 mg/l (Designed value: 4840 mg/l) and concentration MLVSS: 1179 mg/l (Designed value: 3872 mg/l) are less than the designed values, which indicates the poor operation of the SBR.
- VI. The CETP has installed Online Continuous Effluent Monitoring System (OCEMS) at the final outlet of treated effluent for the parameters- pH, TSS, COD, BOD with connectivity to PPCB & CPCB servers. During the visit, the OCEMS was found operational and variation in OCEMS reading compared with the monitored results was also reported which indicates the improper working / validation / calibration of OCEMS system.
- VII. During the visit, it was observed that the CETP has provided sludge storage facility and obtained membership from M/s Re-sustainability Limited (M/s Ramky Enviro Engineers Limited) for disposal of sludge. The CETP had disposed 602.685 MT sludge during the period of 02.04.2023 to 31.03.2024, through TSDF.

D. CETP - 500 KLD CETP, Plot No. D-260-261, Phase-VIII, Focal Point, Ludhiana, Punjab.

- I. During the visit on 23.04.2024, the CETP was found operational with the flow rate of 450 KLD. It is informed that the CETP receives effluent through dedicated tankers from member units through vehicles (56 in number) equipped with GPS system for carrying effluent. The CETP comprised of physico-chemical process followed by filtration, two stage Reverse Osmosis (RO) followed by evaporator to achieve ZLD as per the consent and EC condition.
- II. The Air consent is valid upto 30.06.2028 and the Water consent is valid upto 30.06.2027 for the operation of 500 KLD CETP. However, the Authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 was valid till 16.06.2021. It was informed that the CETP has applied for renewal of authorization to PPCB on 01.10.2021.
- III. It was reported that 1613 Electroplating industries / Metal Surface Treatment units have obtained membership from CETP and connected to the CETP at the time of

visit. It was also informed by the CETP operator that inlet norms for CETP is not prescribed in the consent.

- IV. On the day of visit, it was observed that the flow meters are installed at RO Feed, RO Reject, Evaporators Vessels feed and Evaporator concentrate. It was reported that the CETP have not installed differential pressure gauge system at Cation-Anion and Carbon filter systems which can be used to indicate the choking/scaling of filtration system.
- V. During the visit, grab samples were collected from the RO outlet of CETP. The analysis result reveals that treated effluent is complying with the notified discharge standards. Discharge of effluent from the CETP premises was not observed during visit. It is reported that treated effluent (RO Permeate and Condensate) is used for cooling tower makeup water, plantation, gardening, watering to MC parks, DC office, NH-95, construction work. The CETP has also made agreement with M/s Vardhman Special Steels Limited C-58, Focal point Phase-3, Ludhiana, to take 100 KLD treated effluent through tankers for using in different purpose as per requirement. Furthermore, the CETP operator has maintained the records of the treated effluent taken by the users for gardening, construction activities & industrial use and others. The CETP has established an Environmental laboratory.
- VI. The CETP has installed OCEMS (Electromagnetic flow meter, PTZ camera) at the final outlet / RO permeate which is connected to CPCB/PPCB portal in compliance of CPCB directions.
- VII. The CETP has installed 05 KLD STP with Moving Bed Biofilm Reactor (MBBR) for treatment of domestic wastewater.

AND, NOW, THEREFORE, in exercise of powers conferred under section 18(1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention and control of pollution) Act, 1981, Punjab Pollution Control Board (PPCB) is hereby directed to take appropriate action including imposing environmental compensation and to ensure that CETPs are operated ensuring.

- a. Operation/augmentation of the treatment system, appropriately, so as to meet the prescribed discharge standards and to comply with the disposal condition mentioned in the Environmental clearance by MoEF & CC dated 03.05.2013 and 08.12.2014 in the aforesaid 40 MLD, 50 MLD and 15 MLD CETPs. Further, to stop discharging of treated effluent into Buddha Nallah from the 50 MLD CETP, 40 MLD CETP and 15 MLD CETPs.

- b. With valid consent under the Water Act-1974 / Authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 from PPCB and comply with all the conditions mentioned thereof.
- c. Undertaking regular calibration, maintenance and validation of the OCEMS analysers as per standard operating procedures/recommendations of the suppliers, so as to ensure generation of continuous & reliable data.

Further, PPCB is also hereby directed:

- a. To prescribe disposal condition to respective CETPs in accordance with the Environmental clearance by MoEF&CC dated 03.05.2013 and 08.12.2014.
- b. To prescribe the inlet standard for CETP in accordance to the CETP notification dated 01.01.2016.
- c. To regularly undertake verification of member industries of the CETP for ensuring proper operation of PETP/ETP by individual member industry.

The action taken by PPCB be intimated to CPCB within 15 days of receipt of these directions.


(Bharat Kumar Sharma)
Member Secretary

Copy to:

1. **The Chairman** : for information, please.
Punjab Pollution Control Board
Vatavaran Bhawan, Nabha Road
Patiala Punjab
2. **The Additional Secretary (CP Division)** : for information, please.
Ministry of Environment, Forests & Climate
Change,
Prithvi Wing, 2nd Floor, Indira Paryavaran
Bhawan, Jor Bagh Road,
New Delhi-110 003.

3. **The Regional Director (Chandigarh)** : for follow-up, please.
Central Pollution Control Board
BSNL Telephone Exchange, 2nd Floor
Sector - 49C, Chandigarh - 160047
4. **Divisional Head, WQM-I,** : for information, please.
CPCB, Delhi
5. **Divisional Head, IPC-VI,** : for information, please.
CPCB, Delhi
6. **Divisional Head, IT** : for uploading on CPCB
CPCB, Delhi website, please.



(Bharat Kumar Sharma)



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