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CPCB/IPC-VII/VECL/2019/ 10187

December 17th, 2019

To

The Chairman,
Gujarat Pollution Control Board
Sector 10-A, Gandhinagar - 382 043
Gujarat

Sub: Modified directions under Section 18 (1) (b) of The Water (Prevention & Control of Pollution) Act, 1974 and The Air (Prevention & Control of Pollution) Act, 1981 in the matter of non-compliance status of M/s Vadodara Enviro Channel Ltd., (VECL) - Reg.

WHEREAS, amongst others, under Section 17 of the Water (Prevention and Control of Pollution) Act, 1974, one of the functions of the Gujarat State Pollution Control Board (GPCB), constituted under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention & Control of Pollution) Act, 1981, is to plan a comprehensive programme for the prevention, control and abatement of pollution of streams, wells and ambient air in the State of Gujarat and to secure the execution thereof; and

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

WHEREAS, Central Pollution Control Board (CPCB) has been receiving repeated representations and grievances regarding leakage of effluent from effluent conveyance system, operated & maintained by M/s Vadodara Enviro Channel Ltd., (M/s VECL) and also non-compliance of treated effluent discharge standards; which were also forwarded to GPCB for appraisal of the present status and action taken for rectifying the situation;

WHEREAS, it is understood that GPCB has carried out analysis of effluent of the channel at the location named J-Point during September, 2019 and found non-compliance w.r.t TSS, TDS, COD and BOD; and

WHEREAS, CPCB, RD, Vadodara earlier carried-out groundwater monitoring in Luna, Dudhawada, Piludara area near Vadodara and the same was communicated to GPCB on 01.08.2016, vide letter no. B-3608/01/PC/PCI-1/3428; and

The major sources identified for ground water pollution in the area were:

- Secured landfill of M/s Hutsman International Ltd., (HIL), Village Luna and unscientific disposal of hazardous wastes in their captive TSDF;
- Chemical industries in Zone-3 of effluent channel particularly dye & dye intermediate industries; and
- Effluent channel of M/s VECL.

WHEREAS, the copy of the inspection report was forwarded to GPCB for Action Taken Report including remediation plans by 10.08.2016; and

WHEREAS, CPCB issued directions to GPCB under section 18 (1) (b) of The Water (Prevention & Control of Pollution) Act, 1974 and The Air (Prevention & Control of Pollution) Act, 1981 on 16.08.2016 in the matter of ground water pollution in Luna, Dudhawada, Piludara area near Vadodara, Gujarat; and

WHEREAS, GPCB issued directions to M/s VECL under section 33-A of The Water (Prevention & Control of Pollution) Act, 1974 on 09.09.2016 to submit the time bound action for compliance of directions; and

WHEREAS, in response to the public grievances and also analysis results of effluent at J-Point, GPCB issued directions under section 33-A of The Water (Prevention & Control of Pollution) Act, 1974 from time-to-time. Also, recently GPCB issued directions under section 33-A of The Water (Prevention & Control of Pollution) Act, 1974 vide even letter number, dated 26.07.2018, 13.12.2018 and 17.07.2019. However, it is understood that no time bound action plan has been complied by M/s VECL.

WHEREAS, in response to the public grievances (Paryavaran Suraksha Samiti and Farmers Action Group) inspection cum monitoring, was carried out by CPCB along with officials of GPCB, Regional Office, Vadodara, on 16.09.2019. The following are the major observations:

- 1) GPCB has issued Consolidated Consent & Authorisation (CC&A) prescribing standards for various physicochemical parameters for discharge of treated effluent. As per CC&A conditions, M/s VECL is responsible for collection of treated effluent from member industrial units and final discharge of treated effluent into estuarine zone of River Mahi, Gulf of Cambay at J-Point on downstream of Vill: Sarod, Tal: Jambusar, Dist: Bharuch.
- 2) It is inferred from the CPCB monitoring results during 2015 - 2018 that M/s VECL is consistently found non-complied at J-Point w.r.t. prescribed discharge standards and the concentration of various parameters viz. COD is found exceeding 1.36 to 11.39 times; BOD: 2.44 to 5.56 times; NH₃-N: 1.61 to 7.74 times; TSS: 1.06 to 4.43 times; TDS: 1.58 to 3.42 times than the prescribed discharge standards.

- 3) In-spite of drastic dilution of effluent in the conveyance system due to heavy rain; the concentration of TSS, TDS, COD and BOD at the final discharge point (i.e. J-Point) was found exceeding the prescribed discharge standards. The concentration of TSS, TDS, COD & BOD was exceeding 1.23, 1.72, 1.67 & 1.04 times respectively than the prescribed discharge standards.
- 4) Also, it is inferred from GPCB monitoring results on 10.09.2019 that the concentration of TSS, TDS, COD & BOD at the final discharge point i.e. J-Point was found exceeding the prescribed discharge standards. The concentration of TSS, TDS, COD & BOD was exceeding 4.24, 3.51, 6.49 & 1.75 times than the prescribed discharge standards. It is a matter of fact and well established from past inspection cum monitoring by this office and GPCB that after Zone-3, the quality of effluent in the effluent conveyance system deteriorate drastically due to unauthorized discharge of untreated/partially treated effluent from member industries (mostly dye & dye intermediates located in Zone-3).
- 5) M/s VECL has commissioned new parallel pipeline from Vedach pumping station to J-Point by keeping in view to abandon the existing effluent channel because of leakage issues and structural instability. However, during inspection it is observed that due to excess hydraulic load on account of heavy rain; the effluent is being pumped into existing effluent channel as well as newly laid pipeline.
- 6) M/s VECL in-spite of repeated directions by GPCB, has continued to be non-complied by diverting effluent into existing effluent channel citing operative issues of newly laid pipeline. The newly commissioned pipeline has not been designed to handle excess hydraulic load on account of rain if any; i.e. factor of safety has not been considered while designing & commissioning of pipeline; resulting in divergence of effluent into the existing effluent channel.
- 7) It is observed that at certain patches i.e. after Vedach pumping station (i.e. towards J-Point), the concrete slabs of effluent channel were in dilapidated condition.
- 8) As per the CC&A conditions, effluent from conveyance system should be channelized and stored in existing 02 nos. of lagoons (18.2 MLD capacity each) and discharge into estuarine zone of River Mahi, Gulf of Cambay only during high tide conditions. However, effluent from conveyance system is being continuously and directly discharged into estuarine zone of River Mahi, Gulf of Cambay i.e. bypassing the lagoon and discharging effluent throughout the day.
- 9) It is evident from present inspection that at certain stretches of effluent channel (especially after Vedach pumping station towards J-Point) the side-wall of effluent channel was breached due to excess hydraulic load on account of heavy rain; resulted in spreading of effluent into nearby agricultural fields and ponds. The water samples collected from alleged locations found contaminated with overflow from effluent conveyance system and has not shown appreciable

changes in the water quality even due to drastic dilution of effluent with rain water and prevailing water in the pond, percolation of contaminated water in the agricultural field.

- 10) M/s VECL is still not complied especially w.r.t. installation of closed conveyance system for effluent conveyance from origin of effluent channel to final disposal point; suitable effluent disposal point into estuarine zone of River Mahi, Gulf of Cambay; and establishment of adequate treatment facility at J-Point to comply with the prescribed discharge standards.

AND NOW THEREFORE, in exercise of powers conferred under Section 18 (1) (b) of The Water (Prevention and Control of Pollution) Act, 1974; modified directions are issued to GPCB to take appropriate action for compliance of the following:

- (i) Ensure implementation of earlier directions issued especially w.r.t. commissioning of closed pipeline for effluent conveyance from Nandesari, Vadodara to J-point, establishment of treatment facility at J-Point and effluent disposal point into estuarine zone of River Mahi, Gulf of Camby as suggested by NIO on priority.
- (ii) As per CC&A conditions, M/s VECL may channelize effluent into lagoons and discharge only during high tide conditions.
- (iii) The member industries in Zone-3 shall be directed to send the treated effluent through tankers attached with GPS into existing CETP at Umaraya for further treatment and disposal into effluent channel.
- (iv) To carry out surveillance inspection cum monitoring of member industries on daily basis and all the member industries should be brought under closed surveillance to avert unauthorized discharge of untreated/partially treated effluent into conveyance system.
- (v) To ensure and regulate quality of effluent through OCEMS surveillance monitoring and regular manual sampling of effluent from member industries and at J-point. OCEMS data should be connected to GPCB and CPCB servers.
- (vi) GPCB shall take stringent action for non-compliance of discharge standards from member industries, which may include imposing Environmental compensation and termination of MoU for effluent conveyance.
- (vii) M/s VECL should take corrective actions on priority basis to lift the overflowed effluent and conveyance into effluent channel.
- (viii) M/s VECL should abandon the existing brick lined effluent conveyance channel (from Vedach pumping station to J-Point) and commission another parallel closed pipeline of adequate capacity as a standby system during the event of O&M of newly laid pipeline and heavy rainfall condition if any.

- (ix) GPCB shall also conduct detailed assessment of ground water quality in the aforesaid area for ascertaining ground water contamination and take remedial measures.
- (x) GPCB shall also submit time-bound action plan for remediation of the contaminated wells/any water body.

GPCB shall ensure compliance to above directions and submit action taken report within 30 days from the date of receipt of the directions.

(S. P. Singh Parihar)
Chairman

Copy to:

1. **The Joint Secretary, CP Division** : For kind information.
Ministry of Environment,
Forest & Climate Change,
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2. **The Regional Director,** : For kind information.
Regional Directorate (West),
Central Pollution Control Board
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Near VMC Ward Office No. 10,
Subhanpura, Vadodara-390 023,
Gujarat
3. **I/c IT Division,** : For kind upload on the website.
CPCB, Delhi

(Prashant Gargava)
Member Secretary


