

STATUS REPORT OF M/S TALOJA CETP CO-OPERATIVE SOCIETY LIMITED, MIDC TALOJA, DISTRICT RAIGAD, MAHARASHTRA IN COMPLIANCE OF HON'BLE NGT ORDER DATED 17.02.2020 IN THE MATTER O.A. NO. 125/2018 (ARVIND P. MHATRE VS. MOEF&CC & ORS)

1.0 BACKGROUND

Shri. Arvind P. Mhatre filed Original Application No. 125 of 2018 in Hon'ble National Green Tribunal (Hon'ble NGT), seeking various relief against the damage to environment in the Kasadi River and Ghot River due to discharge of effluent from Common Effluent Treatment Plant (CETP) Taloja. The matter has been dealt by Hon'ble NGT on several dates and orders have been passed from time to time in this regard. Considering the requirement of continuous action and its monitoring, Hon'ble NGT constituted a three member monitoring committee under the chairmanship of Hon'ble Justice V.M. Kanade (Retd. Judge of Bombay High Court) to ensure time bound implementation of the action plan with credible mechanism.

In continuation of above proceedings, Hon'ble NGT passed an order on dated 17.02.2020. Part of the order reads as,

“...The State PCB and the CPCB may continue monitoring and file its report by 30.04.2020...”

In compliance of the said order, due to present situation of COVID Pandemic a status report is prepared by collecting information, photographic evidences and monitoring results of the CETP carried out by MPCB till July 2020. In addition, a joint e-visit of the CETP was also arranged on 04.09.2020 to observe physical progress, wherein Shri Pravin Patil, Field Officer, MPCB, SRO-Taloja was present at CETP and following officials from CPCB joined through video conference(VC):

1. Shri Amit Thakkar, Scientist D
2. Dr. Nirpendra Semwal, Scientist C

2.0 OPERATIONAL STATUS OF CETP

Maharashtra Pollution Control Board (MPCB) issued Consolidated Consent and Authorization (CCA) dated 11.11.2019 to the CETP for a period 31.12.2018 to 31.12.2023. Copy of CCA is attached as **Annexure I**. The CETP has obtained consent to establish for expansion of 5 MLD from MPCB.

As per CCA, the trade effluent treatment capacity of CETP is 22.5 MLD. The CETP presently operates in two phases (Phase-I: 12.5 MLD and Phase-II: 10MLD). Presently both the phases of the CETP are operational. Establishment of expansion of 5 MLD is under progress.

3.0 STATUS AND FINDINGS

Status and findings based on e-visit (through VC) and monitoring results of MPCB are discussed in subsequent paragraphs

3.1 STAGE WISE STATUS OF WORK PROGRESS AT CETP

The effluent conveyed through the MIDC pipelines is received at CETP in Bar Screen Chamber followed by Oil & Grease trap and then sent to a chamber from where the effluent is distributed to Phase-I and Phase-II for further treatment.

The revamping work of civil structure of bar screen chamber to the distribution chamber is completed. The Mechanical screen provided is yet to be made operational.



Inlet collection Chamber



Oil and Grease trap and Bar screen from inlet chamber to Distribution Chamber

Status of Phase-I

Collection Tank of Phase I CETP is now provided with 06 numbers of submerged Mixers (Slow speed large blade mixer each of capacity 5 KW). The mixers were provided to keep turbulence in the collection tank to avoid settlement of sludge. The Flash Mixer and flocculator now

provided for Phase I are operational. Wastewater from flocculator is transferred to Primary clarifier followed by secondary treatment.

The Primary clarifier, anoxic tank, aeration tank and secondary clarifier of Phase I was operational. Presently the wastewater from collection tank is transferred to flash mixer by HDPE pipelines. The laying of GRP transfer line for the transfer of wastewater is under progress. The Bio-Feed pit is proposed to provide after primary treatment which is under commissioning stage. The pit is provided to receive wastewater after primary treatment from Phase I & II and will distribute it further for secondary treatment of Phase I, Phase-II and Phase III through control system. Photographs captured on 04.09.2020 for Phase-I are provided below:



Status of Phase-II

In Phase II, collection tank and Equalization tank are to be provided with submerged mixers (03 mixers in each tank). Presently the wastewater from distribution chamber is directly fed to the flash mixture of phase II followed by flocculator, primary clarifier, anoxic tank, aeration tank and secondary clarifier. Hand railing work in stages of Phase II is under progress. Photographs captured on 04.09.2020 for Phase II are provided below:



Equalization Tank, Phase-II



Flash Mixture and Flocculator, Phase-II



Aeration Tank, Phase-II



Secondary Clarifier, Phase-II



V-notch at Final Outlet (Phase-I and Phase-II)

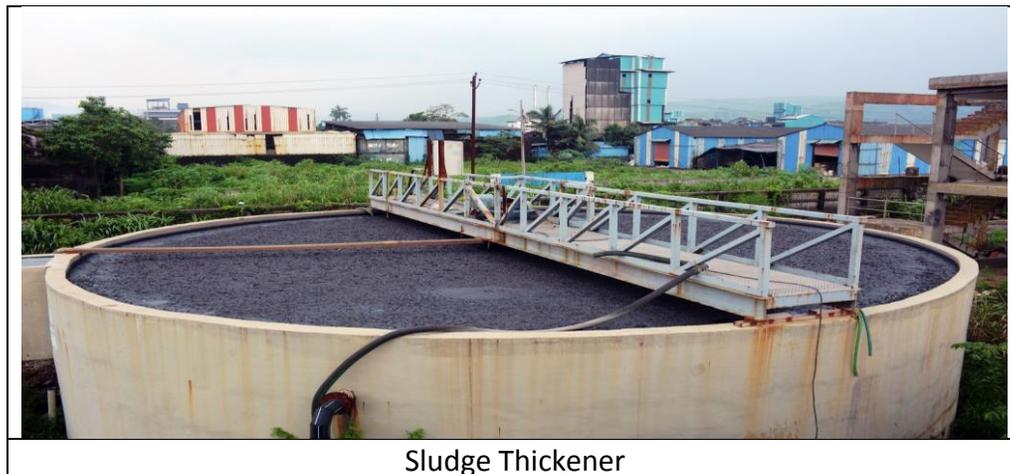
Status of Phase-III

The Phase III CETP is under commissioning stage. The Phase III is not provided with any primary treatment. The Phase III will reportedly receive wastewater after primary treatment from phase I and Phase II through a common Bio-Feed Pit. Photographs captured on 04.09.2020 for Phase III are provided below:



Sludge management at CETP Taloja:

Separate sludge thickeners and decanters for dewatering of sludge are provided for phase I and phase II. Presently, Phase I decanter is operational. 12 sludge drying beds (SDB) are provided for Phase I and 05 SDB for phase II. Presently 09 out of total 17 SDBs are functional and covered with tarpoline due to monsoon season. The sludge management facility available for phase I and phase II will also be utilize in future for sludge generated from Phase-III. Photographs captured on 04.09.2020 are provided below:



4.0 FINDINGS

- Both the phases of CETP are revamped and operational. The Phase III of CETP is under commissioning stage. The CETP has obtained valid CCA from MPCB for Phase I and Phase II and CTE for Phase III.
- As informed by MPCB, due to present situation of COVID Pandemic and lockdown, Hon'ble District Collector, Raigad has initially given permission to 171 industries to operate out of total 982 industries in the MIDC.

- As per daily flow records provided by the CETP, average monthly flow from October 2019 to 23rd August 2020 is given below.

Month	Avg. Flow (m ³ /d)	Month	Avg. Flow (m ³ /d)
Oct-19	12897.57	Apr-20	12273.33
Nov-19	12997.56	May-20	14708.87
Dec-19	14163.24	Jun-20	14898.50
Jan-20	13921.29	Jul-20	17945.09
Feb-20	15390.34	Aug-20	21614.44
Mar-20	14121.48		

- The designed capacity of CETP (phase I and Phase II) is 22.5 MLD. It is found that the CETP average monthly flow has shown increasing trend from October 19 (12.89 MLD) to August 2020 (21.64 MLD) except for the month of April 2020 (12.27 MLD).
- The CETP has provided OCEMS at the final outlet for 08 parameters namely pH, BOD, COD, TSS, Oil & Grease, Phenolic Compounds, Chromium and Temperature. The OCEMS installed at inlet (bar screen chamber) has been removed for maintenance.
- Flow meter is also provided at inlet and outlet but online connectivity is yet to be established.
- The monitoring results of CETP collected from MPCB for the month of July 2020 is shown below:

Parameter	06.07.2020		13.07.2020		20.07.2020		27.07.2020	
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
pH	6.7	7.3	6.1	7.1	6.3	7.2	6.7	7.4
BOD	130	102	310	64	300	38	650	60
COD	392	272	816	224	832	120	1600	200
SS	70	58	144	90	200	54	360	60
O & G	BDL	BDL	BDL	BDL	1.4	BDL	BDL	BDL
TDS	1856	2580	1839	2408	3334	2059	4405	2074

Note: all values are expressed as mg/l except pH.

MPCB analysis results of final outlet shows that the CETP meets the discharge standards for the monitored parameters except for COD (MPCB Norms: 250 mg/l) once on 06.07.2020 and BOD (MPCB Norms: 30 mg/l) for all 4 occasions.

- As per the record, 2096.72 MT sludge has been disposed during 02.01.2020 to 09.06.2020 at Mumbai Waste Management Limited, a CHW-TSDF facility in Taloja.

6.0 CONCLUSION

Due to present situation of COVID-19 pandemic and lockdown situation, the present status report of CETP Taloja is prepared based on the joint e-visit of the site by MPCB and CPCB and data provided by MPCB. The physical progresses in the revamping and operational status of CETP are summarized in subsequent paragraphs. The CETP has now obtained valid CCA from MPCB for operation of Phase-I and Phase-II. The CETP has also obtained CTE for expansion of 5MLD (Phase-III) from MPCB.

Both Phase-I and Phase-II of CETP are revamped and operational. The CETP has started receiving wastewater from the member industries with increasing trend from October 2019 to August 2020. The average flow received during August 2020 is 21.61 MLD. As per daily flow records for the month of August, inlet flow exceeded the design capacity of the CETP (22.5 MLD) for about 9 days in the month. It was informed that the high flow was due to heavy rainfall in the area.

Revamping of Phase-I and Phase-II is almost completed except OCEMS at the inlet, installation of mixers in the collection and equalization tank of Phase II, GRP fixed transfer pipe lines, cabling work for control system, hand railings etc. In addition to above work for providing internal roads, online connectivity of flow meters with CPCB and MPCB need to be taken by the CETP. The Phase-III CETP (5 MLD), is proposed to be provided with secondary treatment only. In the proposed plan of expansion, the wastewater after primary treatment in the existing 22.5 MLD plant will be collected in the Bio-feed Sump. The bio-feed sump will be provided with flow controller to divert wastewater to Phase-I, Phase-II or Phase-III as per the respective capacity. The sludge generated from phase III will be dewatered and dried in the existing sludge management system.

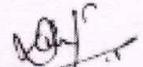
During the month of July 2020, MPCB has carried out monitoring of the CETP four times. MPCB analysis results of final outlet shows that the CETP meets the discharge standards for the monitored parameters except for COD (MPCB Norms: 250 mg/l) once on 06.07.2020 and BOD (MPCB Norms: 30 mg/l) for all 4 occasions.

Considering above operational status, MPCB monitoring results and completion of revamping work, the CETP has shown improvement in performance. However, the overall improvement in the performance and efficiency of the CETP needs to be monitored on regular basis by MPCB.


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