

**VISIT REPORT OF CETPs LOCATED AT AMBERNATH AND DOMBIVALI AREA of MAHARASHTRA  
(April 2020-June 2020)**

**1.0 BACKGROUND**

Hon'ble National Green Tribunal (NGT), Pune has passed a Judgment dated 02.07.2015 in the matter 37/2013 (Vanshakti & Ors verses MPCB & Ors), wherein one of the directions of the said judgment reads as

*"..CPCB shall verify the compliance of CETPs. Monthly monitoring of CETP Dombivali and Ambernath and random inspections of major industries located in the area for ensuring compliance and separate monthly report to be submitted till 3 months of compliance of CETP and implementation of action plan..."*

To comply with the Judgement of NGT Pune, CPCB RD (W) started monthly monitoring of following Common Effluent Treatment Plants (CETPs) located in Dombivali and Ambernath.

- M/s Dombivali Better Environment System Association, Dombivali, Dist Thane
- M/s Additional Ambernath CETP, Ambernath, Dist Thane
- M/s Chikhholi-Morivali Effluent Treatment, Ta. Ambernath, Dist Thane
- M/s ACMA - CETP-Co- operative Society Ltd, Ambernath, Dist Thane
- M/s Dombivali CETP (Chemical) (Phase-II), Dombivali, Dist Thane

Monthly monitoring of the above stated five CETPs located in the area was started from the month of July 2015 onwards and continued till November 2016. In the meantime, CPCB filed an Execution Application at Hon'ble NGT, Pune requesting to grant permission for quarterly monitoring, which was granted by the Hon'ble tribunal on 07.12.2016 and accordingly quarterly monitoring of the above mentioned CETPs started from calendar year 2017 and CPCB has submitted quarterly monitoring report of CETPs to the Registrar of Hon'ble NGT Pune till March 2020. The quarterly monitoring of the above mentioned CETPs for the quarter April to June 2020 was not carried out by CPCB because of prevailing COVID-19 situation. CPCB has sent email to MPCB with a request to submit monitoring reports of above mentioned CETPs if carried out by regional office of MPCB during this quarter and also email was sent to all the above CETPs for submitting information during the quarter and about the activity carried out in the respective CETPs during lockdown. Based on the status information till June 2020, a status report with respect to CETPs are given in subsequent paragraphs.

**2.0 SAMPLING AND MONITORING METHODOLOGY FOR CETPs**

This report is prepared based on the information collected through email from CETPs. The analysis results of the quarter submitted by MPCB Regional Office, Kalyan.

Brief information, treatment process adopted etc. about all the 05 CETPs has already been described in earlier initial reports. Therefore the observations based on the information received is compiled in the form of status report for the quarter April – June 2020.

**3.0 DOMBIVALI CETP (CHEMICAL) (PHASE-II), DOMBIVALI, DIST THANE  
FINDINGS**

- Based on status information till 20.06.2020, the CETP has not received wastewater for treatment since 20.03.2020, because of prevailing situation of COVID -19 lockdown. The

CETP was kept in operation to keep the biomass active by circulating the stored wastewater in the equalization tank and also adding external food like methanol.

- The CCA issued to the DCETP on 27.11.2017 by MPCB is valid up to 31.12.2020.
- As per the CCA, DCETP is authorized to dispose 1.07 MT/day sludge to CHWTSDF. DCETP has submitted records for the disposal of sludge to CHWTSDF from January 2020 to June 2020. As per record, DCETP has not disposed sludge during June 2020 due to COVID-19 situation. The CETP has disposed 109.31 MT i.e. approx. 0.73 MT/day during January 2020 to May 2020. As informed, the accumulated sludge was removed during the period from sludge drying beds.
- Treated wastewater from DCETP is sent for final disposal to a sump at DBESA CETP from where it is pumped to the same disposal point of DBESA CETP at Khamadpada Nallah, Thakurli. However, as per CCA the wastewater should be discharged at the point suggested by NIO. As informed, MIDC is nodal agency for construction final disposal line and the Environment Clearance for the laying pipeline has been received. The laying down of pipeline work will be completed before 2022 by MIDC.
- MPCB has carried out sampling of DCETP on 05.06.2020 and 11.06.2020. The sample were collected from equalization tank (inlet) and outlet (which is routed back to equalization tank) analysis results of samples submitted by MPCB are depicted in table below.

Parameter	MPCB Inlet norms	Inlet		Outlet		MPCB Discharge norms
		05.06.2020	11.06.2020	05.06.2020	11.06.2020	
pH	6.0-9.0	7.9	7	6.9	7.8	6.0-9.0
BOD (mg/l)	1500	600	600	54	52	30
COD (mg/l)	3500	2080	1824	180	196	250
TSS (mg/l)	--	110	74	46	34	100
O & G (mg/l)	20	BDL	2	BDL	BDL	10

Note: All the values are reported in mg/l except pH

\*Discharge standards as Notified by MoEF&CC dated 01.01.2016 and amended in the CC&A issued vide dated 27.11.2017 by MPCBs

- The analysis result of sample collected from the equalization tank reveals that the analyzed parameters within the MPCB prescribed standards for inlet.
- The analysis results of the sample collected from the final outlet of CETP reveals that concentration of BOD exceed the MPCB discharge standards. The remaining monitored parameters are observed within limits.

#### CONCLUSION:

The CETP has not received wastewater for treatment since 20.03.2020, because of prevailing situation of COVID -19 lockdown. The CETP was kept in operation to keep the biomass active by circulating the stored wastewater in the equalization tank and also adding external food like methanol. During this quarter, MPCB has carried out monitoring on 05.06.2020 and 11.06.2020. The analysis result of sample collected from MPCB reveals that concentration of

BOD exceeds the MPCB discharge standards even when industrial wastewater is not being received. It indicates operational lacuna.

#### 4.0 DOMBIVALI BETTER ENVIRONMENT SYSTEM ASSOCIATION (DBESA), DOMBIVALI, DIST THANE

##### FINDINGS

- As informed by the CETP, during lockdown due to COVID-19 pandemic, only essential services industries were operating. Textile sector which is the major source of wastewater for DBESA CETP was classified as non-essential services and thus were non-operational and hence no wastewater was received to the CETP from textile sector. However, the CETP has received lean quantity of wastewater from the operational essential sectors (Chemical) located in Dombivili (Phase I and Phase II) Area. The CETP was kept operational with 25% manpower. As the biomass in the treatment units of the CETP were required to be kept healthy, the CETP also utilized external food & nutrient sources such as methanol, sodium acetate, urea, DAP, tri-sodium phosphate etc. and recirculated the treated wastewater for uniform distribution of nutrients in the bioreactors.
- The sludge generation was minimized by optimum food/nutrient addition and old sludge drying pits were revived for storage. The CETP transferred 350 MT, 164 MT, 30 MT sludge in April, May, June (till 15.06.2020) to CHWTSDF site MWM Taloja.
- MPCB has carried out sampling of DBSEA CETP on 05.06.2020 and 11.06.2020 from inlet and outlet. The analysis results of samples submitted by MPCB are depicted in table below:

Parameter	MPCB Inlet norms	Inlet	Inlet	Outlet	Outlet	MPCB Discharge norms
		05-06-2020	11-06-2020	05-06-2020	11-06-2020	
pH	6 to 9	8.5	7.3	7.5	7.3	6 to 9
BOD	800	280	550	62	34	30
COD	1600	760	1744	196	124	250
SS	--	80	550	62	24	100
O & G	20	BDL	BDL	BDL	BDL	10

Note: All the values are reported in mg/l except pH

- The analysis result of inlet to CETP submitted by MPCB reveal that inlet wastewater is having analyzed parameters within the MPCB prescribed standards except COD on 11.06.2020.
- The analysis result of outlet of CETP submitted by MPCB reveal that outlet wastewater is having analyzed parameters within the MPCB prescribed standards except BOD.
- The treated wastewater from DBESA CETP and D-CETP is discharged into the Ulhas creek (saline zone of Ulhas River) near Railway Bridge, Khamadpada Nallah, Thakurli through pipeline provided by MIDC. As per CCA the treated wastewater should be disposed at the point suggested by NIO. As informed, MIDC is nodal agency for construction final disposal line and the Environment Clearance for the laying pipeline

has been received. The laying down of pipeline work will be completed before 2022 by MIDC.

#### CONCLUSION

During the lockdown due to COVID-19 pandemic in the quarter (April to June 2020), only essential services industries were operating. The CETP has received lean quantity of wastewater from the operational essential sectors (Chemical) located in Dombivili (Phase I and Phase II) Area. The analysis result of sample collected from inlet reveals that the CETP is receiving wastewater having concentration of COD exceeding MPCB inlet prescribed standards on 11.06.2020. The analysis results of the sample collected from the final outlet of CETP reveals that the concentration of BOD exceeds the MPCB discharge standards. The remaining monitored parameters are observed marginally within limits even when industrial wastewater is not being received in full load. It indicates operational lacuna.

#### 5.0 ADDITIONAL AMBERNATH CETP, AMBERNATH, DIST THANE

M/s Ambernath MIDC CETP company Pvt. Ltd. (M/s Bharat Udyog Ltd.) was established in 1995-96 and is located at Plot No. AM-13, opp. fire station, MIDC additional Ambernath, Tal. Ambernath, Dist. Thane. CETP had obtained consent to operate from MPCB which was valid up to 31.12.2014. Thereafter MPCB has issued renewal of CCA dated 21.05.2018 which is valid upto 31.12.2019. However, the CETP is non-operational since last 4 years due to closure directions dated 02.07.2016 from MPCB and not yet started operation.

#### 6.0 M/S ACMA - CETP-CO-OPERATIVE SOCIETY LTD, AMBERNATH FINDINGS

- Based on the information received till 21.06.2020, due to pandemic COVID-19 lockdown situation, the CETP received average 38.55 CMD from April 2020 to June 2020 compared to about 137.64 CMD wastewater from January 2020 till March 2020 (before lockdown due to COVID-19 pandemic). As the member industries are not operating in full capacity, the CETP is not receiving continuous flow of wastewater. Thus, the CETP is treating wastewater after sufficient accumulation of wastewater in the equalization tank. The CETP has obtained CC&A from MPCB which is valid up to 31.12.2020.
- As informed, the CETP did not receive any wastewater during 24.03.2020 to 10.03.2020. The CETP used jaggery and continuous aeration to maintain food and oxygen level in the aeration tank and carried out regular lubrication and preventive maintenance of machinery during lockdown due to the pandemic.
- As per the CCA, ACMA is authorized to generate and dispose 2 MT/month CETP sludge to CHWTSDF. ACMA CETP has submitted records of sludge disposal from January to June 2020. As per the records, ACMA has disposed 5.2 MT sludge in February 2020 and 3.4 MT sludge in June 2020, while approx. 0.5 MT of sludge is stored.
- The CETP disposes the treated wastewater in the Nallah flowing adjacent to the CETP, whereas as per the consent condition, the treated effluent should be connected to the sewerage system provided by MIDC and finally discharged into marine coastal areas, at a point suggested by National Institute of Oceanography.
- As informed by MPCB, the OCEMS installed by the CETP is operational and connected to MPCB and CPCB servers.

- MPCB has carried out sampling of ACMA CETP on 09.06.2020 and 18.06.2020 from inlet and outlet. The analysis results of samples submitted by MPCB are depicted in table below.

Date of Sample collection	Inlet consented standard	09.6.2020	18.6.2020	09.6.2020	18.6.2020	Outlet consented standard
		Inlet	Inlet	Outlet	Outlet	
pH	6.0 to 9.0	7.5	7.2	7.6	7.2	6.0 to 9.0
BOD	1500 mg/l	32	64	7	12	30mg/l
COD	3500 mg/l	92	204	32	56	250mg/l
SS	--	16	260	12	30	100 mg/l
O & G	20 mg/l	BDL	BDL	BDL	BDL	10 mg/l
TDS	--	6600	3612	2904	3612	--

Note: All the values are reported in mg/l except pH.

- The analysis result of sample collected from the collection tank reveals that the CETP is receiving wastewater having analyzed parameters within the MPCB prescribed standards.
- The analysis results of the sample collected from the final outlet of CETP reveals that the monitored parameters are within MPCB prescribed standards

#### CONCLUSION:

During the quarter, due to COVID-19 pandemic situation the ACMA CETP has received about 0.03 MLD compared to the installed capacity of 0.25 MLD. The analysis results of the sample collected by MPCB reveals that the CETP meets the MPCB discharge standards.

#### 7.0 M/S CHIKHLOLI-MORIVALI EFFLUENT TREATMENT, AMBERNATH FINDINGS

- The CETP has obtained CC&A from MPCB which is valid up to 30.06.2020. The hydraulic capacity of the CETP is 0.8 MLD (800 m<sup>3</sup>/day). The CETP also receives domestic sewage from MIDC mixes it with industrial wastewater for treatment.
- Based on the information received, during the month of April 2020 the CETP received only 123.9 m<sup>3</sup> due to COVID-19 pandemic situation compared with the average 297.144 m<sup>3</sup>/day, 306.46 m<sup>3</sup>/day, 352.24 m<sup>3</sup>/day wastewater in January, February and March 2020 (till 21.03.2020) before lockdown. The CETP has received wastewater on an average 44.3 m<sup>3</sup>/day during May 2020 and 136.42 m<sup>3</sup>/day during June 2020.
- As per the records submitted, the CETP has disposed 9.32 MT, 7.62 MT, 0.96 MT, 9.28 MT sludge in January, February, March, May 2020 respectively to CHWTSDF facility, Mumbai waste management Ltd., Taloja. The CETP has presently stored 12.12 MT of sludge in its premises.
- During lockdown, when the CETP received very less quantity of wastewater, the aeration was kept in continue operation in the aeration tank along with mixing of chemicals such as urea, DAP, ortho phosphoric acid as nutrients and feeding received

sewage. After lockdown was lifted and essential services resumes, the CETP was operated on alternate days due to less quantity of wastewater at the inlet.

- The anaerobic treatment system installed in the CETP needs proper operation and maintenance. Apparently this system is nonfunctional and reportedly there is no gas formation. Moreover, proper gas handling system is not in place.
- As informed by MPCB, the OCEMS installed by the CETP is operational and connected to MPCB and CPCB servers.
- The CETP receives wastewater from member industries through tankers. The CETP is maintaining the records of tankers received in a register.
- The CETP discharges the treated wastewater at Valdhuni Nallah flowing adjacent to the CETP as per CCA.
- MPCB has carried out sampling of Chickhloli Morivali CETP on 09.06.2020 and 18.06.2020 from inlet and outlet. The analysis results of samples submitted by MPCB are depicted in table below.

Date of Sample collection	MPCB Inlet norms	9.6.2020	18.6.2020	9.6.2020	18.6.2020	MPCB Outlet Norms
		Inlet	Inlet	Outlet	Outlet	
pH	5.5 to 9.0	7.8	7.6	7.5	7.4	5.5 to 9.0
BOD	1500	290	300	48	30	30
COD	3500	728	784	140	120	250
SS	--	60	146	20	24	100
O & G	20	BDL	1.6	BDL	BDL	20
TDS	--	4824	3318	3520	3061	NIL

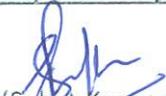
*Note: All the values are reported in mg/l except pH.*

- The analysis result of sample collected from the collection tank reveals that the CETP is receiving wastewater having analyzed parameters within the MPCB prescribed standards.
- The analysis results of the sample collected from the final outlet of CETP reveals that the CETP is discharging wastewater having analyzed parameters within the MPCB prescribed standards except BOD on 09.06.2020. It indicates operational lacuna.

#### CONCLUSION

During the quarter, due to COVID-19 pandemic situation the CETP has received about 0.00413 MLD of industrial wastewater compared to the installed capacity of 0.8 MLD. The analysis results of the sample collected by MPCB reveals that the CETP meets the MPCB discharge standards except BOD on 09.06.2020. The Anaerobic treatment system should be revamped, maintained and operated properly with adequate provision for gas handling.

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