SUPPORT TO SOCIETY

- Conducting In-plant training programmes for various academic institutions
- Improving awareness of environment among students and professionals from all disciplines.
- Well equipped laboratory facility made available to student community.
- Helping other CETPs in solving their operational problems.
- Imparting education to students & general public on CETP treatment process, conservation of water etc..
- Conducting "Tree Plantation" drive, active participation in spreading awareness among general public about "Eco-Ganesha"

FUTURE OUTLOOK

- * Pilot plant operational studies to reuse/recycle treated effluent through tertiary treatment
- * Pilot plant for anaerobic treatment technology to tackle the effluent streams of high organic load
- ${\displaystyle * \quad \text{Up gradation of Laboratory Setup and MoEF approval}}$
- * Processing to Obtain ISO certifications to CETP

TREATMENT EFFICIENCY OF THE PLANT

BOD Removal : 90 to 95 % COD Removal : 80 to 85 %

MONTHLY TREATMENT COST (T.C.)

(TC based on 100 % MIDC water consumption)

| (Te based of 100 % Milbe water consumption) | | | | | |
|---------------------------------------------|------------|-------------|-----------|--|--|
| | S.S.I. | MSI / LSI | Associate | | |
| Fixed Cost | Rs. 725 | Rs.10,000 | Nil | | |
| Hydraulic Cost/CuM | Rs. 10.00 | Rs. 5.00 | Nil | | |
| Organic Cost (As COD / kg of | Nil | Rs. 9.50 | Nil | | |
| Organic load >250 mg/l) | | | | | |
| TAN (Amonical Nitrogen) abo | ve 100ma/L | Rs. 1.00/M3 | | | |

'ठाणे-बेलापूर औद्योगिक पट्टा' आशिया खंडातील एक मोठा औद्योगिक पट्टा आहे. या औद्योगिक पट्ट्यामध्ये विविध प्रकारच्या मोठ्या व मध्यम कारखान्यांबरोबर लघुउद्योगांची संख्याही मोठी आहे.

कोणत्याही प्रकारच्या उत्पादनिर्मितीमधून निर्माण होणाऱ्या जलप्रदुषकांची योग्य प्रकारे विल्हेवाट लावण्यासाठी 'औद्योगिक सांडपाणी प्रक्रिया संयंत्र' आवश्यक असते. मोठे व मध्यम कारखानदार अशी यंत्रणा उभारण्यास व राबविण्यास सक्षम असतात. परंतु लघुउद्योजकांना जागा, तांत्रिक कौशल्य व आर्थिक उपलब्धतेच्या अभावी अशी यंत्रणा स्वतंत्रपणे उभारणे व चालविणे शक्य होत नाही. ही अडचण दूर करण्यासाठी वन व पर्यावरण मंत्रालय- केंद्र शासन, केंद्रीय तसेच राज्य प्रदुषण मंडळ, राज्य औद्योगिक विकास महामंडळ व जागतिक बँक यांनी स्थानिक औद्योगिक संघटनांना 'सामाईक औद्योगिक सांडपाणी प्रक्रिया केंद्र' (कॉमन एफ्लुएन्ट ट्रीटमेन्ट प्लान्ट) उभारण्यास प्रोत्साहित केले (१९९०). याचा लाभ घेऊन ठाणे-बेलापूर औद्योगिक संघटनेने इतर लघुउद्योग संघटनांच्या सहकार्याने 'कॉमन एफ्लूएन्ट ट्रीटमेन्ट प्लान्ट (ठाणे -बेलापूर) असोसिएशन' ची स्थापना केली व सामाईक प्रक्रिया केंद्राचा पहिला टप्पा म्हणून १२ दशलक्ष लीटर्स / प्रतिदिन क्षमतेचा 'एक्सेन्डेड एरिएशन ॲक्टीवेटेड स्लज' प्रक्रियेवर आधारित प्रकल्प बांधून कार्यान्वित केला (नोव्हे. १९९७). तसेच निर्माण होणाऱ्या अतिरिक्त सांडपाण्यावर प्रक्रिया करण्यासाठी १५ दशलक्ष लीटर्स / प्रतिदिन क्षमतेचा दुसरा टप्पा बांधून कार्यान्वित केला आहे (मार्च २००६). हे दोन्ही प्रकल्प 'महाराष्ट्र प्रदुषण नियंत्रण मंडळानी घालून दिलेले निर्बंध पाळण्यात यशस्वी ठरले आहेत.

ठाणे-बेलापूर सामाईक औद्योगिक सांडपाणी केंद्रामध्ये सर्व सांडपाणी भूमीगत वाहिनींद्वारे आणले जाते.

वरील दोन्ही प्रकल्पांमुळे ठाणे-बेलापूर औद्योगिक पट्ट्यात निर्माण होणाऱ्या २७ दशलक्ष लीटर्स औद्योगिक सांडपाण्याची दररोज योग्य प्रक्रिया केली जाते. सदर प्रकल्पांची सविधा लघ उद्योजकांबरोबर मोठ्या व मध्यम कारखानदारांनाही उपलब्ध करून देण्यात आली आहे. यामळे काही महत्त्वाचे फायदे झाले :

- भक्कम आर्थिक स्थिती
- प्रक्रिया केलेल्या सांडपाण्याच्या एकत्रीकरणामुळे प्रदुषकांची होणारी सौम्यता
- एकाच भूमीगत वाहिनीद्वारे संपूर्ण प्रक्रियायुक्त (२७ दक्षलक्ष लीटर्स / प्रतिदिन) सांडपाणी वाशी खाडीमध्ये सोडण्याची सोय.



CETP

Common Effluent Treatment Plant (Thane-Belapur) Association

P-60, M.I.D.C.Khairane, P.O. Kopar Khairane, Thane-Belapur Road, Navi Mumbai - 400 710.

Mr. V.S. Chalke Founder Chairman

Period : 1993 - 2003

Present Board Of Board

Mr. S. R. Iyer Mr. P. V. Shimpi Chairman
Vice Chairman

Dr. M.P. Deshpande Mr. Sandeep Kundra

Mr. J. John

Dr. Uday Pandit

Mr. V. Choksi

Mr. Ganesh Gawade

Mr. Vinod Narkhede

CETP Staff

Mr. Rajan Diwadkar

Mr. Krishnat S. Pisal

Mr. Bharat D. Chaskar

Intensive efforts were made by Thane Belapur Industries Association (TBIA) to set up a CETP in MIDC, TTC industrial area. The plant of 12 MLD capacity (Phase - I) is in successful operation since 1997.

In order to tackle extra load generated by the industries in TTC industrial area, an Additional Common Effluent Treatment Plant of 15 MLD Capacity (Phase - II) was envisaged and is commissioned in 2006.

The 12 MLD CETP is designed by M/s. Environmental Engineering Consultants and is executed by M/s. SACEDE INDIA LTD. For the Additional CETP of 15 MLD Capacity, all the process design work has been carried out by CETP (Thane-Belapur) Association with in-house expertise and M/s. Paramount Ltd were the Turnkey Contractors for the job.

CETP (Thane - Belapur) Association is a registered organisation under Section 25 of Companies Act 1956 and is managed by the Board of Directors. Representatives of user members form the Board of Directors and give honorary service.

SCHEME OF CETP

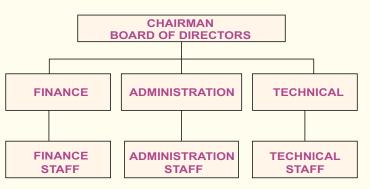
CETP scheme was implemented mainly to tackle the problem of liquid effluents generated especially from small scale industrial units(SSI) who are having technoeconomic constraints. The facility was also made available to all medium & large scale industrial units (MSI/LSI) with the aim to strengthen the financial support, to obtain dilution effect due to mixing of treated effluents and to utilize the common single disposal system.

Ministry of Environment & Forest, Central and State Pollution Control Board, Maharashtra Industrial Development Corporation & World Bank are actively involved in setting up of CETP facility and are extending their cooperation for successful operations of CETP.



Aeration Tank

ORGANISATIONAL SETUP





larifier

DETAILS OF CETP MEMBERS(as on October 2014)

680 Nos. Small Scale User Members Medium/Large User Members 114 Nos. 2558 Nos. Non User Member (Associate Members)

MEMBERS CAPITAL CONTRIBUTION

USER MEMBERS.

Medium / Large Units. : Rs. 5,00,000 /-Small Scale Industries : Rs. 75,000/-

ASSOCIATE MEMBERS

Medium / Large Units. : Rs. 20,000 /-Small Scale Industries : Rs. 1,00,000 /-

SCHEME OF OPERATION

CETP membership has been made mandatary by MPCB. User Members have to enter into Tripartite Agreement regarding the use of CETP facility and also agree to pay cost of treatment through MIDC Water Bill

SSIUNITS:

Undertake primary treatment in terms of pH, degreasing, removal of suspended solids & detoxification if any and are allowed to discharge primary treated effluent to inlet of CETP.

*** MSI/LSI UNITS:**

Undertake Primary & Secondary treatment and discharge treated effluents meeting prescribed discharge norms to inlet of CETP.

***** ASSOCIATE MEMBER :

These members are those, who do not generate industrial trade effluents. Their domestic effluent is accepted by CETP as hydraulic load. No treatment charges are levied to these units.

The combined effluents received at the inlet of CETP are fully treated and discharged through the disposal line meeting the prescribed discharge norms laid down by MPCB.

SALIENT FEATURES OF THE PROJECT

LOCATION : P-18 & P-60, Khairane

MIDC, Navi Mumbai.

COLLECTION SUMPS: At Sanpada & Pawane

CAPACITY : 27,000 CuM /Day

> (Two independent plants of 12 MLD & 15MLD Capacity)

TREATMENT TECHNOLOGY : Extended Aeration Activated Sludge

Process

: Underground drainage **MODE OF**

RECEIVING EFFLUENT network.

IN CETP

POINT

Through tanker loads in

special cases

FINAL DISCHARGE

: Trans Thane Creek through underground

Pipeline provided by

MIDC.

SLUDGE HANDLING

: Member of TTCWMA

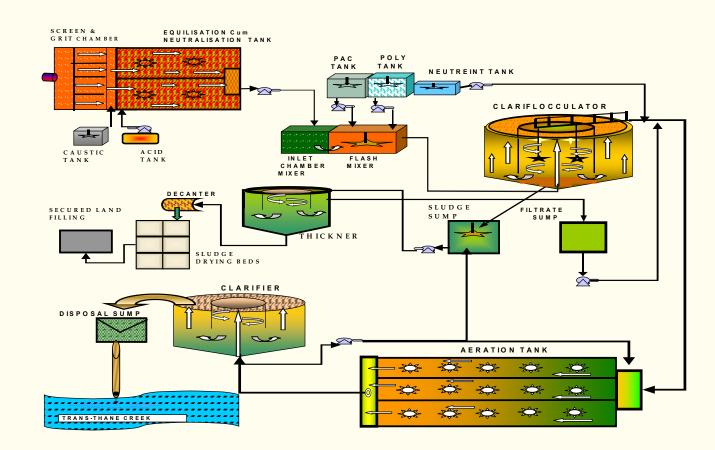
& DISPOSAL

for Secured Land filling

DETAILS OF VARIOUS UNITS OF TREATMENT SCHEME

| DETAILS OF VARIOUS SHITS OF TREATMENT SOTTEME | | | | | |
|-----------------------------------------------|---------------------------------|-------------------|----------------|--------------------|----------------|
| Sr. | C. | 12 MLD PLANT | | 15 MLD PLANT | |
| No. | Units | Capacity (CuM) | Retention time | Capacity (CuM) | Retention time |
| 1 | Equalisation Tank (2 Nos.) | 2,375 (each) | 4.5 hrs. | 2,500(each) | 4.0 hrs. |
| 2 | Inlet Chamber | 8 | 52 sec. | 10 | 58 sec. |
| 3 | Flash Mixer | 6 | 39 sec. | 10 | 58 sec. |
| 4 | Clariflocculator | 1,716 | 3.5 hrs. | 1,980 | 3.17 hrs. |
| 5 | Aeration Tank | 15,500 | 31.5 hrs. | 16,000 | 25.6 hrs. |
| 6 | Clarifier | 2643 | 5.25 hrs. | 3200 | 5.12 hrs. |
| 7 | Sludge Sump | 70 | | 125 (2 Nos) | |
| 8 | Thickner | 280 | | 310(2 Nos) | |
| 9 | Filtrate Sump | 45 | | 160 | |
| 10 | Sludge Drying Bed (7 Nos.) | 400 Sq.Mt.(each) | | | |
| 11 | Centrifuge Decanter (15 CuM/hr) | 1 No. | | 2 Nos. | |

EXTENDED AERATION ACTIVATED SLUDGE PROCESS



DESIGN, INLET & OUTLET CHARACTERISTICS

| Parameters | Design Characteristics | | Inlet Characteristics | Outlet Characteristics | Discharge Limits |
|------------|---------------------------|------------|--------------------------|---------------------------|---------------------|
| рН | 2.0 to 6.2 | 4.0 to 7.0 | 5.5 to 7.5 | 7.0 to 7.5 | 5.5 to 9.0 |
| COD mg/l | 3200 mg/l | 2000 mg/l | 900 to 1500 | 180 to 240 | 250 |
| BOD mg/l | 1000 mg/l | 1000 mg/l | 400 to 900 | 10 to 50 | 100 |
| TSS mg/l | 340 mg/l | 340 mg/l | 100 to 300 | 25 to 75 | 100 |
| O&G mg/l | 170 mg/l | 170 mg/l | 25 to 75 | < 5 | 10 |

FINANCE DETAILS

12 MLD PLANT

15 MLD PLANT

| Loan from Financial Institution (IDBI) | Rs. 140 lacs | |
|----------------------------------------|---------------------|--------------|
| Subsidy from State & Central Govt | Rs. 100 lacs | Rs. 425 lacs |
| Contribution from User members | Rs. 160 lacs | Rs. 425 lacs |
| TOTAL PROJECT COST | Rs. 400 lacs | Rs. 850 lacs |

CONTRIBUTIONS

For initial 12 MLD Plant, the Infrastructures like Drainage Network, Pumping stations, Transformers & Biological Tank were handed over by MIDC.