



**CENTRAL POLLUTION CONTROL BOARD  
ZONAL OFFICE (SOUTH)  
BENGALURU**

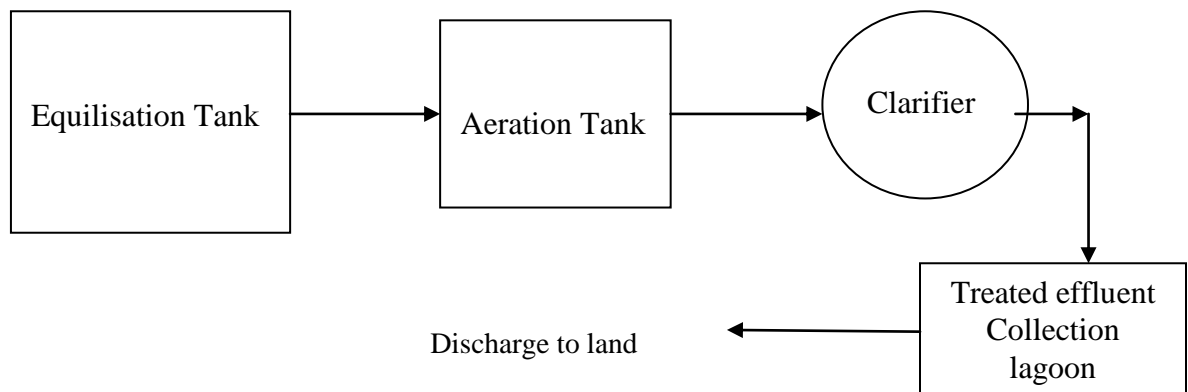
**Monitoring Report of M/s Kinfra Techno Industries Park, Common Effluent Treatment Plant, Kakkanchery, Kerala**

<b>1.</b>	Name/ address of CETP/ company	M/s Common Effluent Treatment Plant, Kinfra Techno Industries Park, Kakkanchery, Chelembra P.O Malapuram – 673 634, Kerala
<b>2.</b>	Area occupied by CETP (plot area)	1.67 acres
<b>3.</b>	Total no. of staff (including operational & skilled persons)	3 nos.
<b>4.</b>	Contact person (Name, Designation, and Contact No, FAX, e mail)	Sh. Kishore Kumar K.S, Asst. Manager 0494 – 2401775 kinfratip@gmail.com
<b>5.</b>	Status of CETP	Operational (only secondary Treatment)
<b>6.</b>	Consent & Authorization	Applied for renewal on 20.08.2014
<b>7.</b>	Industrial area/estate (s) connected to CETP	KINFRA Techno industrial park, Kakkancheri
<b>8.</b>	Type of industries in the connected industrial areas	
	Industrial area/estate	Type of industries
	KINFRA Techno industrial park	Food Processing
	Number of member industries of CETP	
	9 nos.	
<b>9.</b>	Method of collection of effluent (pipeline/tanker)	Pipeline
<b>10.</b>	Details of flow meters	No flow meters
<b>11.</b>	Treatment capacity	625 m <sup>3</sup> /day
<b>12.</b>	Wastewater treated	100 m <sup>3</sup> /day
<b>13.</b>	Wastewater if bypassed in CETP from treatment:	No

<b>14.</b>	<b>Treatment units and dimensions</b>			
	<b>Name of the unit</b>	<b>Numbers</b>	<b>Dimension m</b>	<b>Capacity, m<sup>3</sup></b>
	Screen Chamber	1		
	Equalization tank	2	8.6 x 8.6 each	225 each
	Aeration tank	2	9.5 x 9.5 each	248 each
	Clarifier	1	10 dia	157.5
	Sludge Drying Bed	3	10 x 10	300 m <sup>2</sup>
<b>15.</b>	Details of chemicals used		Only Biological treatment. No chemicals used	
<b>16.</b>	Sludge generation			300 – 400 kg/month
<b>17.</b>	Excess Biological Sludge Management System			Nil
<b>18.</b>	Conveyance system for disposal of treated wastewater			Pipeline
<b>19.</b>	Method of Treated wastewater disposal			Stored Lagoon and used for irrigation
<b>20.</b>	Capital cost			Rs.83.64 lakhs
<b>21.</b>	Operational cost			Rs 67,000/month
<b>22.</b>	Inspection Team			Sh. R. Rajkumar, Sc C Sh. Deepesh V, SSA Sh. S. Seenivel Raj, JLA
<b>23.</b>	Date of Inspection			17/03/2014

#### Observations:

- The CETP is commissioned in an Industrial park developed by KINFRA. The Industrial Park has 19 nos. food industries in which 9 units are member of CETP.
- The CETP has only secondary treatment of installed capacity 625 m<sup>3</sup>/day in which about 100 m<sup>3</sup>/day of effluent is being received. The member units are discharging the effluent to CETP after primary treatment.
- The treatment system in the CETP has only biological treatment (Fig. 1). The CETP consists of equalisation tank, aeration tank, clarifier, sand & carbon filter and filter press.



**CETP Flow Chart**

- The samples were collected at different stages of the treatment unit. The characteristics of the effluent are shown below.

Parameters	Designed inlet norms	Equalization tank	Final Outlet	Standards
<b>pH</b>	6 - 8.5	6.6	7.8	<b>6.5 – 8.5</b>
<b>TSS</b>	< 600	116	04	<b>100</b>
<b>TDS</b>	-	1352	1398	<b>2100</b>
<b>BOD</b>	< 350	620	3.2	<b>30</b>
<b>COD</b>	-	832	21.2	<b>250</b>
<b>O &amp; G</b>	-	--	3.4	<b>10</b>
<b>Aeration Tank</b>		<b>MLSS</b>	6000	

\* All values are in mg/l except pH

- The treated effluent quality is meeting the stipulated norms as prescribed by KSPCB but the effluent qualities received from member units are higher than the designed norms of the treatment unit. Since the effluent flow is less than the designed capacity, the CETP is meeting the discharge norms.
- The CETP is not having proper access to the treatment unit and treated water storage lagoon. So the sample was collected from the outlet of the clarifier.



- It was informed by the unit that excess biological sludge is not produced so far, which is practically not possible and the analysis result of MLSS shows that the excess sludge from aeration tank is also not being removed periodically.



- No flow meters were installed at inlet and outlet of CETP.
- No records are being maintained by the unit such as sludge generation & disposal, energy meter etc.

**Recommendations:**

- The member units should operate the PETP properly before discharge to CETP.
- Flow meters shall be installed at inlet and outlet of CETP.
- Excess biological sludge should be removed from the aeration tank.
- Proper access is to be provided all over the plant for proper & safe access to treatment units and treated water storage lagoon.
- Proper records are to be maintained such as sludge generation & disposal, energy meter etc.

(R. Rajkumar)  
Scientist C

(S. Suresh)  
Scientist D