



CENTRAL POLLUTION CONTROL BOARD

Zonal Office (South)

Nisarga Bhavan, Thimmaiah Road
Shivanagar, Bangalore - 560 010

Inspection Report of M/s 110 MLD Kodungaiyur Sewage Treatment Plant Zone I & II

1	Name & Location of STP		110 MLD Kodungaiyur STP- Zone I & II Chennai
2	STP constructed by		Chennai Metropolitan Water Supply and Sewerage Board
3	Agency for operation and maintenance of STP		M/s VA Tech Wabag Ltd
4	Process of sewage treatment		Activated sludge process
5	Design capacity		110 MLD
6	Actual capacity		85-90 MLD
7	Description of treatment units		
	Primary settling tank	Volume	6860.11m ³
		settling surface area	1960.03 m ³
		Weir length	147.65 m
		retention period	2.82 hr
	Aeration tanks	Volume	25255.08 m ³
		Retention period	5.5 hr
		MLSS & MLVSS, mg/l	2500-5000 mg/l
		Aeration capacity	37 KW/ 50 HP
		Rated aeration capacity Kg/KW hr	1.22 Kg O ₂ /KW hr
	Secondary settling tank	Volume	8092.96 m ³
		settling surface area	2312.28 m ²
		Weir length	319.81 m
		retention period	3.36 hr
	Activated sludge process waste sludge generation		1042.406 m ³ /hr
	Sludge Thickener	Volume	3886.28 m ³
		Thickening surface	1110.36 m ²
	Sludge digester Volume		6074.48 m ³
8	Biogas produced if any		7000-7,500 m ³ /day of Biogas composed of 60-

		65% methane is produced Capacity of gas engine-1064 KW
9	Power generation if any	13-15 MW /day (2KWH/m ³ of biogas)
10	Point of treated sewage disposal	Secondary treated sewage is supplied to M/s Chennai Petroleum corporation Ltd, M/s Madras Fertilizer Ltd, M/s Manali Petrochemicals Ltd and Chennai Municipal Corporation for watering of plants. Remaining treated sewage is discharged into nearby water bodies.
11	Mode of sludge disposal	Grit and sludge from centrifuge are sent to Madurai Corporation composting site maintained by Madurai corporation
12	Bypass arrangement of STP, if any	Though by-pass line provision is made in the pipeline from pumping station near river but reported that no sewage is bypassed
13	Method of sludge disposal	sludge from STP is disposed in the landfill and solid from scrubber are bagged and given to CMWSSB
14	Power requirement	14.9 MW/day CMWSSB has imposed a condition that with operating agency that minimum 69% of power requirement should be met by Biogas, 17% by DG set and 14% from electricity board.
15	standby arrangement for power if any	1000 KVA DG set
16	Status of skilled/ trained manpower	26 no.s trained manpower
17	Status of maintenance of log books	All maintenance log books are up to date
18	Status of laboratory	Facilities to analyse pH, TSS, COD, BOD, MLSS & MLVSS are available

Observations:

- Chennai Metropolitan Water Supply and Sewerage Board under Chennai city river conservation programme constructed Kodungaiyur Zone I & II STP of 110 MLD capacity during 2005-06.
- The facility was inspected by Sh. G. Dharmalingam, Sc-“C” during November, 2013
- The facility has adopted Activated Sludge Process with biogas generation for treatment of sewage. The settling tank is equipped with mechanical scrapper. The treated sewage from secondary clarifier is further polished in maturation ponds. The treatment flow diagram is placed as **Annexure-I**.
- The facility is spread out in a total area of 710 acres.