

CASE STUDY

LEACHATE TREATMENT at PMC, PUNE.



Background

There was a requirement to treat the leachate to achieve required parameters for disposal as per the pollution control board norms .

Plant Installed

RO Membrane System

RO based Technology is a membrane based technology it separate out heavy metals & VOC & treats water for refuse, using an efficient membrane process system.

This system is less expensive & easy to use compared to other effluent filters.

The RO aims to extract clean water from a mixture of organic & in organic contaminants that constitute to leachate waste water.

Advantages

- maximise recovery of treated water
- on site, online solution helps in fast treatment & eliminates transportation of leachate to sewage treatment plant / other natural resources.
- It requires minimum pretreatment & No Sludge Generation from Pretreatment Processes.
- It limits the spread of contaminants like COD, BOD, TDS, TSS etc. to the environment
- Lesser space & time required for plant set up.

Recovery Rate

> 85% by RO



Before Treatment

After Treatment

Plant Performance:

Sample: RO Feed & RO Permeate

Parameters	Unit	Input to RO (RO Feed)	RO Output (RO Permeate)
Chemical Oxygen Demand	ppm	30800	160
Biochemical Oxygen Demand	ppm	12434	28
Total Dissolved Solids	ppm	19829	343
Iron as Fe	ppm	75	<0.05
Lead as Pb	ppm	0.053	<0.05
Chromium as Cr	ppm	0.27	<0.04
Nitrate as NO ₃	ppm	<2	<2
Phosphorous as P	ppm	<2	<2

Salient Features:

The installed system treats the input leachate to a level of quality where it can be easily disposed off as it is within the MPCB norms for wastewater disposal.