



Chemical industry

Chemical Effluent Treatment Plant



Problem Statement

Our client’s manufacturing processes generate complex effluent that was not meeting municipal discharge specifications. Watericon conducted comprehensive testing, which identified elevated manganese, fluoride and iron levels, as well as high colour, turbidity and COD. Based on these results, Watericon designed and implemented a chemical effluent treatment plant to treat the complex wastewater and ensure the final effluent meets the required discharge specifications.

Solution

In order to treat the water, the Watericon engineers designed a Wastewater Treatment Plant consisting of chemical pre-treatment, followed by primary slow dual-media, and secondary slow activated carbon filtration. In addition, chemical dosing was added at certain pre-determined stages of the treatment process.



Plant feed

- Municipal tap water



Performance Target

- Turbidity removal - 98.4 %,
- COD removal – 80.2%
- Removal efficiencies – 96.4% and 93.7%



Process

- Raw water storage and pumping
- Reaction vessels
- Flocculation
- Settling
- Filtration
- Chemical dosing system



Innovation

- Watericon’s vast experience & technical know-how enables us to treat various difficult effluent across all manufacturing industries. Reducing waste streams & recovery options add to payback of these effluent plants.