

EcoFlush Cold for recovery from load-related upset at municipal waste water plant

Product: EcoFlush Cold

Trial setting: Municipal sewage plant

Location: Bend, Oregon, USA

Objective

Start-up and upset recovery in municipal waste water plant

Methods

A municipal waste water plant at Bend, Oregon was affected by a load-related upset and was not working satisfactorily. The plant process daily 4.5 million liters of waste water. Seed sludge was trucked in from another municipal plant but there was no beneficial effect on nitrification probably due to the low temperature that reached 5° C.

The waste water was then treated with EcoFlush Cold at a dose rate of 1 kilogram per day for one week, then the dose rate was reduced to 500 grams per day.

Results

The day of the first EcoFlush Cold application the ammonia concentration in the influent water was 20 ppm and the effluent water after passing through the plant was 17 ppm demonstrating that the plant was not efficient in the nitrification process.

A significant amount of foam was produced during the first two days of treatment with EcoFlush Cold due to the organic matter accumulated during the down time of the plant. The water quality started to improve. After a week of treatment the ammonia concentration was below 3 ppm and after two weeks this parameter was at 0.8 ppm, which is concentration below the required parameter for plant operation. All the organic matter accumulated during the down time was eliminated and there was no need of dredging for its removal.

The graph below show the ammonia concentrations in the inflow and outflow waters in the treatment plant for the first two weeks after the initial use of EcoFlush Cold.

Removal of Ammonia in a waste water treatment plant after starting use of ECOFLUSH

