

PERSISTENT ORGANIC POLLUTANTS (POPs) IN WASTEWATER TREATMENT PLANTS

Project reference

Project:

Pilot project in Umeå MWWTP

Customer:

Umeå MWWTP

Project period

2001

Nature of task:

- Determination of dissolved part of persistent organic pollutants in the high load pollution environment as municipal wastewater

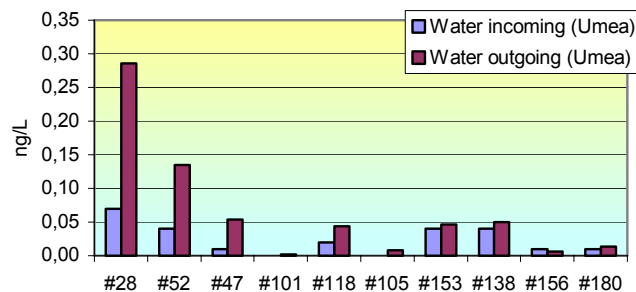


Summary

Most efforts have been focused on reducing the effluent of the traditional parameters such as BOD, nitrogen and phosphorus, as well as some heavy metals. This study presents dissolved concentrations of a multitude of persistent organic pollutants (POPs) in Umeå MWWTPs (140.000pe).

The results of the project indicated that not all the persistent organic pollutants entering the wastewater treatment is efficiently removed during the cleaning process, even if BOD is efficiently decreased. Dissolved concentrations of some POPs even increased. It was revealed tendency for “Light” PAHs to decrease and “Heavy” PAHs to increase in the outgoing water in both plants. Total concentration of Pesticides decreased during the treatment, while PCBs increased. Musk compounds (mainly Galaxolide) in Umeå MWWTP were the most dominating group of pollutants in the samples.

Air contamination with POPs in the in-door work environment originating from the evaporation during sludge centrifugation were identified.



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