

Odour Reduction at a Sludge Transfer Station of a Municipal Wastewater Treatment Plant

Odour Control Using the Dry Vapour Unit– QM Case study 121



Problem

H₂S and ammonia odors are a problem at the dried sludge transfer area of a municipal wastewater treatment plant located in the town of Ružomberok in Slovakia. The municipal wastewater treatment plant receives a large portion of its influent from the pulp and paper mill located approximately 8 km from the treatment plant. During loading of the trucks, which transport the dried sludge off site, the odour inside the building is creating dangerous working conditions. In 2014 the management of the wastewater treatment plant implemented an odour control system based in atomization of a liquid water based product. Although this product proved effective, the downside was that the treatment area was covered in water-product mixture which created slippery conditions. QM Environmental Services and its Slovakian distributor Sokoflok Slovakia s.r.o. was asked to offer an alternative with the Dry Vapour Unit.

Objective

The primary objective of the DVU application was to reduce the H₂S and Ammonia odours inside the transport building without the formation of wet floors.

Procedure

A Dry Vapour Unit with a 100 m capacity was installed for a one month free pilot. Regular PVC piping was used to transfer the OxiMax in gaseous phase to the treatment area.



Both H₂S and Ammonia in the air were monitored by the municipal wastewater treatment plant.

Results and Conclusions

The Dry Vapour Unit demonstrated it could achieve better results on the H₂S and ammonia removal in the loading area atmosphere. There were no wet floors anymore and product consumption was significantly lower compared with their old treatment system. Based on the good results and the lower annual operational costs for the DVU system the customer decided to purchase the unit.

