Winner of the 2015
Water Management Company of the Year

CASE STUDY

Removing Oils and Xylenes from Stormwater

Customer:	Global Integrated Oil Company – Petrochemicals
Location:	Southeastern USA

APPLICATION: **Removal of oils and Xylenes from Stormwater**

Objectives of the Treatment

- To reduce the oil and hydrocarbon concentration in the storm water run-off to less than 1ppm

Key metrics

- Inlet 5 – 100ppm of oil and light hydrocarbons
- Outlet: less than 0.5 ppm
- Flow Rate: Two separate systems with flow rates of 700m^3/hr and 1300 m^3/hr

Contact/ Reference: Upon request

MYCELX DELIVERED:

Consistent performance since installation in 2005

Small footprint

Low waste generation

Significant cost savings

Low maintenance required (<30hrs per year)

CHALLENGE

The existing wastewater treatment plant did not have capacity to handle the additional oil and hydrocarbon load from a deluge of a million gallons of water onto the facility during a storm event.

The hazardous nature of these hydrocarbons combined with the high flow capacity and fluctuating loading rates (xylene loadings from 10 ppm –1000 ppm) posed significant treatment challenges to conventional hydrocarbon removal technologies like activated carbon or biological systems.

Also in an existing operational facility, space is at a premium, low maintenance and low waste generation requirements are also critical due to the hazardous nature of contamination in the water. The end user needed a robust and failsafe system with low maintenance requirements, low waste generation and a footprint small enough to retrofit into the existing facility infrastructure.

SOLUTION

After extensive evaluations by the end user, MYCELX Oil Free Water Technology was chosen because it offered the best solution based on:

- Required performance
- Small Footprint
- Low waste
- Delivery time

MYCELX units able to handle 700 m^3/hr and 1300 m^3/hr have been installed since 2005.

IMPACT

Quick response:

- Installation of both the systems (700 m^3/hr and 1300 m^3/hr) on site within record 9 months of signing contract

Consistent Performance:

- Reliable performance to date - no violations since installation in 2005

Significant cost savings:

- **Small footprint** of 10 m x 5 m for 1300 m^3/hr unit and 5 m x 5 m for 700 m^3/hr unit.
- **Low cost to install:** End user did not incur large infrastructure development costs in terms of site preparation, civil, utilities and foundations that would have been necessary for other treatment options
- **No additional pump capacity:** Low operating pressure requirement of 2 bar for the entire system meant there was no need for additional pump to the end user's existing storm water pumps
- **Lowest Capex of any alternate conventional treatment option**
- **Low waste generation** – 1/100th of any alternate conventional option
- **Low maintenance requirements** and associated costs – less than 30 man hours required for maintenance per year