

PROCESS WATER TREATMENT

Coal Burning Power Generating Plant Removes Turbine Oil Sheen From Process Water Discharge.



BACKGROUND

The largest coal burning power-generating facility in North America was experiencing sheen, caused by turbine oils in their process water being discharged into Lake Erie.

THE PROBLEM

Despite the extensive use of conventional polypropylene hard and soft booms, sheen on the surface of Lake Erie at the location of the plant process water discharge resulted in numerous citations.

THE SOLUTION

The cooling water passed through an oil water separator before exiting to the lake. While removing the majority of the contaminating turbine oils, the separator could not effectively remove the sheen. The very high volumes of process water being used created a current at the plant outlet in excess of 5 knots, making the sheen very difficult to capture. The 8" sock net booms being employed were ineffective. The contractor replaced the sock booms with a MYCELX Terraguard boom and the sheen stopped immediately.



THE RESULTS

Once it was verified that the only hydrocarbons being released was the visible surface sheen, the Terraguard booms were replaced with MYCELX Versimat booms. The booms are replaced every 6 weeks, and there has not been a single further incident of sheen escaping to the lake.

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