SEMRAD
PROCESS CONTROL & MONITORING

CASE STUDY

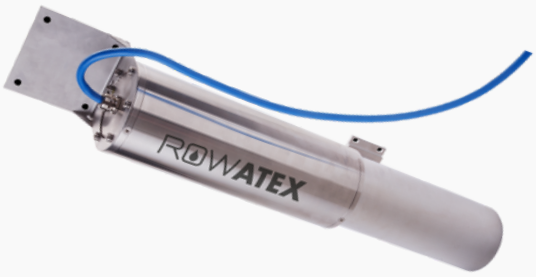
OIL SPILL DETECTION FOR REFINERIES

INTRODUCTION

Refineries are high risk facilities with hazards mainly arising from the processing of hydrocarbons at high temperature or pressure. Despite the rigorous HS&E processes in place at these sites, oil spills can and do occur.

PROBLEM

Oil refineries are often located on rivers, in coastal areas or ports to accommodate the requirements for cooling water and easy access to transportation. Accidental oil spills from process malfunctions and routine operations contaminate the groundwater and waterways. Most facilities operate a “no-oil-in-water” policy, so when spills do occur operations need to be reviewed and actions taken to mitigate and avoid damage.



Past incidents show there are many causes for spills in refineries: slow leakages from storage tanks; cooling water contamination; along with heavy rainfall causing oily water discharge into the waterways, to name a few common scenarios.

Delays in detecting leaks result in lost product, increased downtime and damage to reputation, environment and local infrastructure. Earlier detection allows for easier containment of large spills and enables improved coordination of efforts with authorities to manage the spill response.

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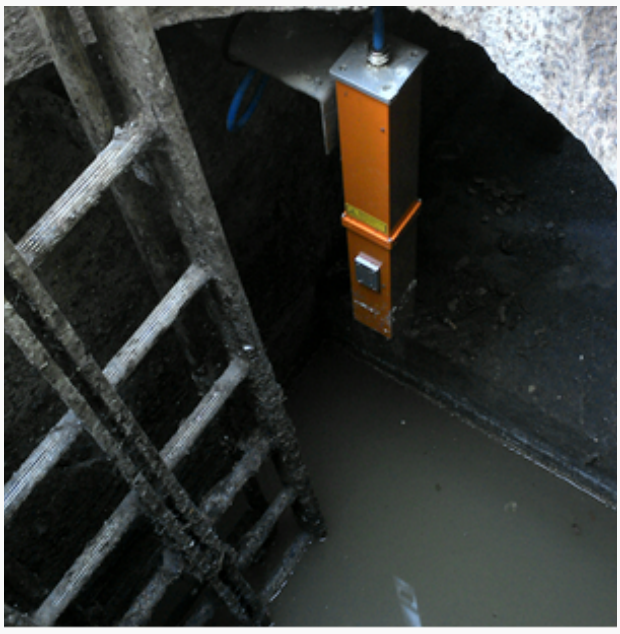
SOLUTION

Installing ROW ATEX enables the detection of a wide range of oils. Delivering alerts directly through existing systems or stand-alone installation ROW ATEX is a flexible solution for real-time response to spills.

Designed specifically for use in hazardous environments, installation and configuration of alarm settings is simple and maintenance is minimal. ROW detects oil even in fast flowing water, making it suitable for installation near outflows where other methods may not be acceptable.

ROW installed and monitoring for oil spills on a stormwater main



ROW installed and monitoring for oil spills on a stormwater channel

Detection range best in class

Real time alerts over SMS and Email

Fewer false alarms

ROW ATEX for zone 1 areas

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