Case Study
SHIPPING PORTS and OIL TERMINALS

Shipping ports accommodate visiting cargo vessels from around the world. Likewise, oil terminals located near waterways, provide easy transfer points for oil products on and off ships to be transported around the world. Traffic is intense and operations can be 24/7.

PROBLEM

The port of Szczecin in Poland serves as a logistics hub located on the Oder and Regalica rivers providing roughly 10% of Poland's total shipping tonnage. As multiple vessels including foreign vessels frequent the area, it would be easy, whether intentional or accidental, for a vessel to release ballast water into the harbor. This water can contain oily residue and contaminants as accumulated during the ship's voyage. Real-time water monitoring is critical to apprehend polluters in the act, night or day.

In China's port of Huaian along the Yanhe river, an oil terminal receives incoming oil product from the Middle East. The bunkering process may take 2-3 days but during this critical time, leaks and spills can easily occur at the anchorage points and if left undetected, a small leak can quickly become an environmental catastrophe for the nearby city of Huaiyin, home to 4.5M residence. Providing safe and reliable services, as well as being socially and environmentally responsible is of utmost importance for these ports, which led them to install the ROW oil detection system.

Recommendations

DETECTION RANGE BEST IN CLASS

DNV CERTIFIED FOR ZONE 1 AREAS

REAL TIME ALERTS OVER SMS & EMAIL

POWERED BY SOLAR PANELS

REAL TIME, ONLINE DATALOGGING

SOLUTION

In 2016, the Port of Szczecin installed it first set of ROW sensors system for early oil spill detection. The sensors were specifically placed at ship anchorage points, literally right next to where the ships would park. The ROW oil spill sensors provided immediate notifications on spill-related information logging data in real-time, each equipment with wireless transmitters and off-grid solar power. Once the Port Police Internal Security Port Control Unit inspectors receive an alert on their mobile phone, the alarm site is inspected to verify the existence of pollution. When the presence of pollution is confirmed, appropriate sequence of actions will be initiated. The ROW system has increased the detection, registration, and tracking of oil-related incidents at the Port of Szczecin.

In 2019, the port of Huaian installed the ROW ATEX for their oil terminal bunkering site. The ROW provides 24/7 onsite water monitoring so any oil spill response action can be immediately implemented from suspected leaks and spills. Given China's increasing demand for oil products and energy, the bunkering points and port oil terminals are kept consistently busy along the surrounding waterways, likewise the ROW provides round the clock environmental monitoring.