

nVent RAYCHEM Fuel Leak Detection Helps Safeguard People, Equipment, and Property in Chile’s Main Airport



PROJECT DETAILS:



Contractor:
SIAV



Location:
Comodoro Arturo Merino Benitez International Airport - Santiago, Chile



Application:
Fuel Leak Detection - Jet fuel storage tanks, pipelines and hydrants



Type of system:
nVent RAYCHEM TraceTek conductive polymer TT5000-HS sensing cable, TT-TS12 locating alarm panel system for fuel leak detection



Contract scope:
Design comprehensive fuel detection system, supply & commission on site



Completion date:
2015

KEY CHALLENGES

Chile's seismic activity creates serious risk for the development of miniature ruptures and leaks in the buried Fuel pipeline, which creates both safety and environmental hazards in addition to increased risk of Airport Operations disruptions. Additionally, periodic pressure integrity testing did not offer the continuous protection leaving airport hydrants systems exposed to undetected leaks between the time of the completion of the last test and the beginning of the next test.

SOLUTION



For mission critical operations like major airports, quick leak detection and accurate location of the source of the leak is vital. The TT5000-HS sensing cable and monitoring system provides reliable and accurate liquid hydrocarbon leak detection that directly pinpoints and communicates the source of the leak. This enables decisive action to be deployed before the spill can create significant damage and disruption to airport operations.

The entire length of the TT5000-HS sensor cable, with its conductive polymer technology, is sensitive to liquid hydrocarbons such as gasoline, jet fuel, diesel and fuel oils. Once installed, the system monitors the entire pipeline – detecting and pinpointing the location of a leak to plus or minus one meter.

PRODUCTS

Belowground Piping

TT5000-HS sensing cable with high strength over braid rope installed in slotted PVC conduit next to the fuel pipe. Any spillage is drawn into the conduit by capillary action and is absorbed by the cable jacket which creates the signal. The cable is not sensitive to water and will not create false signals due to groundwater or rain.

Monitoring

All of the sensing cables are monitored from a single nVent RAYCHEM TraceTek TT-TS12 alarm panel with TTSIM-1 sensor interface modules, providing an intrinsically safe monitoring circuit, rated for the appropriate hazardous area classification. The alarm and communication panel provides capacity for up to 250 circuits, allowing for future pipeline expansion.

BENEFITS

- nVent RAYCHEM TraceTek Leak Detection Systems detect, locate and communicate alarms quickly so you can take appropriate action before serious problems develop.
- Cable and point sensors provide a variety of possibilities for detecting hydrocarbons in these critical operations.
- Sensors are insensitive to ground water, sea water or rain, so you can be confident an alarm signal is "real".

DON'T RISK SAFETY, THE ENVIRONMENT OR YOUR AIRPORT OPERATIONS

Detect a spill, locate the source of the leak and take corrective action before the incident becomes a news story.

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