VESDA Customer Success Story

Chemical Plant in Qatar

“I’ve been working in the fire protection industry and with aspirating smoke detection (ASD) for more than 30 years. VESDA is the benchmark for ASD.”

— Larry Owen,
International Project Director,
Dooley Tackaberry, Inc.

A chemical company in the Middle Eastern country of Qatar required a fire detection solution that would work successfully in its 750,000-square-foot facility under harsh environmental conditions. Temperatures and humidity vary with conditions ranging from 120 degrees bone dry during the day to intense fog during the evening since the facility is close to the ocean. Because of large overhead doors, a significant amount of sand from the surrounding desert also was a consideration. The company has to use a street sweeper to keep the floors clean.

However, maintenance was the primary factor in selecting a fire detection system. With ceilings at more than 40 feet high, installation and ongoing maintenance would be difficult especially if spot detectors were used. More than 800 would be required to protect the facility, which includes manufacturing and high-rack storage areas. “Because installation and maintenance would be a major task, I thought we needed to look at a better solution than traditional spot detectors,” explains Larry Owen, International Project Director, Dooley Tackaberry, Inc.

Chemical Plant
750,000 square-foot facility near the ocean

Partner:
Dooley Tackaberry, Inc.

Solutions:
- VESDA VLP

Benefits:
- 40% savings in installation costs
- 80% lower annual maintenance costs
- High sensitivity for very early warning
- Minimal nuisance alarms in challenging environmental conditions
- Simplified installation and ongoing maintenance
- Central, networked monitoring

VESDA® by xtralis™

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That's why Dooley Tackaberry recommended VESDA by Xtralis very early warning aspirating smoke detection (ASD). VESDA continuously samples the air for even the smallest particles of smoke so a fire can be detected at the earliest stage, providing time to investigate an alarm and initiate an appropriate response to prevent injury, property damage or business disruption.

With each VESDLA VLP able to provide 20,000 square feet of coverage, less than 40 units would be required to protect the facility. The end user could realize a savings of approximately 40 percent on installation and 80 percent annually on ongoing maintenance.

Maintenance also would be safer for personnel because VESDA's pipe network could be designed to sample the air at ceiling height with the detectors placed no more than five feet off the ground. "The flexibility of VESDA's sampling pipe network enabled us to position the pipe and therefore the sampling points where smoke is most likely to travel without having to put any people in the air," says Owen. "The personnel safety benefits are obvious."

Another important benefit of VESDA ASDs is their wide range of sensitivity – from 0.005 to 20 percent obscuration. Detection levels can be set to suit the environment to avoid nuisance alarms while ensuring the appropriate emergency responses are staged throughout a fire's life cycle. "Conventional smoke detectors can be susceptible to nuisance alarms," Owen explains. "The ability to set the sensitivity was another reason we deployed VESDA at the chemical plant."

Finally, all the VESDA VLPs deployed in the chemical facility were networked with VESDAnet, which links VESDA detectors, displays, programmers and remote units on a daisy-chained loop. It enables units to be programmed together from one or more locations and automatically detects communication failures. "Having the [VESDA] detectors networked enabled us to see the whole facility from one place and monitor performance," Owen says.

Dooley Tackaberry (DT) has an extensive history in the fire and safety equipment industry and has evolved into one of the most reliable fire equipment suppliers along the Gulf Coast. Dooley Tackaberry was founded in 1926 as Arthur Dooley & Son and changed its name to Dooley Tackaberry in 1987. We have steadily grown since 1987 and our biggest strengths are designing and fabricating fire detection and suppression systems as well as supplying personal protective equipment to upstream and downstream customers in the oil and gas industry around the world. Today DT represents every major product line in the fire and safety equipment industry.

www.xtralis.com
The Americas +1 781 740 2223 **Asia** +852 2916 8894 **Australia and New Zealand** +61 3 9936 7000
Continental Europe +32 56 24 19 51 **UK and the Middle East** +44 1442 242 330

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