CUSTOMER SUCCESS STORY

VESDA VLI - PROTECTING PROCESS EQUIPMENT IN COAL FIRED POWER PLANTS

The Challenge

As the fire protection system integrator walked through the plant floor of an Alabama coal fired power plant in route to a routine project meeting he noticed a boiler feed pump that was decommissioned due to a recent fire.

Throughout the meeting he continued thinking about the burnt out boiler feed pump. He thought... "How could that fire have been prevented?"

The Solution

At the end of the meeting he told the plant fire protection manager that they should consider protecting their boiler feed pumps with the new VESDA Industrial VLI aspirating smoke detector.

Initially the manager discounted the recommendation thinking... "the application would be too harsh for an aspiration smoke detector". Upon the reviewing the VLI's features, capabilities, and application successes combined with the fact that VESDA had successfully protected their tunnels, cable spread rooms and control rooms for years, he decided to install a VLI on one of their boiler feed pumps.

PROJECT:
Industrial / Energy & Utilities

END USER/LOCATION:
United States

INDUSTRY:
Coal Fired Power Plant

SOLUTION:
VESDA VLI

"Because of lower servicing and maintenance cost, in addition to superior detection capabilities, we will be replacing all spot-type detectors with VESDA ASD."

Principle Risk Management Engineer

The Outcome

Within weeks of installing the VESDA Industrial VLI detector a fire at the boiler feed pump was detected. Because operators were able to intervene at the incipient phase of the fire they were able to extinguish it with a small hand held fire extinguisher. Damage was minimal and the repair consisted of cutting out and replacing a 3 foot by 3 foot section of burnt insulation. No process down time was experienced due to the ability to investigate and intervene during the incipient stage of the fire before extensive damage occurs.

Boiler feed pumps are used to send water into the boiler where it is converted into steam whose kinetic energy is used to power a turbine to generate electricity. It is a very dirty and harsh environment; operating temperatures in excess of 300°F, airborne dirt and steam can be present.

As the boiler feed pumps age, oil leaks and seeps out of the lubrication oil system into the insulation surrounding the boiler feed pump. Over time the insulation becomes saturated with oil and ultimately can lead to spontaneous combustion. Because of the harness of the environment the protection of these pumps has historically been relegated to heat detectors.

Heat detectors are used to protect boiler feed pumps and other industrial process equipment because they are able to survive harsh industrial environments with minimal false alarms. However they are not able to respond to a small fire, and are specifically designed to respond to a large fire event. What industrial sites need are fire detection systems that can provide early warning and without false alarms. Industrial VESDA VLI is the only product on the market today that is specifically designed to provide this level of detection and protection.

ABOUT VESDA VLI

The VESDA VLI is the first very early warning aspirating smoke detector built specifically for the protection of harsh industrial applications based on experience gained over 25 years protecting a diverse range of applications. Key features include: coverage of up to 2,000 m^2 (21,520 sq. ft.), 360 meters (1,181 ft) aggregate pipe length, IP66 (NEMA4) ruggedized industrial enclosure, conformal coated printed circuit boards, modular field replaceable components and incorporating an industry first patented long-life, fail-safe filter technology. VLI sets a new benchmark for the protection of industrial applications. These features deliver the following best in class capabilities:

- Increase confidence and easy in protecting harsh environments
- Longest detector life
- Consistent sensitivity over the life of the detector providing best in class performance
- Provide a lower Total Cost of Ownership