

SUCCESS STORY

VESDA PROTECTS 56-STORY OFFICE BUILDING FROM THE THREAT OF FIRE

THE CHALLENGE

The Wells Fargo Center in Minneapolis, Minn., is a 56-story office building, which is being outfitted with a completely new Notifier fire system. In December 2008, the process began to identify smoke detection/fire alarm activation at the return air grills. Building maintenance and engineering concerns dictated that the smoke detection solution not only be reliable but also easy to maintain and not interfere with the regular maintenance schedule of the air filters.

THE SOLUTION

Electrical duct detectors and other point systems were outlined in the original bidding process. However, Low Voltage Contractors proposed VESDA as the smoke detection/alarm-initiating device in an alternate submission because the Xtralis partner believed that the VESDA solution would provide a clear and advantageous return on investment in the long term. The various vendors involved in the project agreed, choosing VESDA because of its area coverage, flexible pipe design, and ease of maintenance.

VESDA was chosen for the fire alarm-initiating device at the return air grills of the Wells Fargo Center due to the fact that the mechanical room acts as the return air chamber. The filter scheme on the return air vents is typically 5 feet high and 9 to 16 feet wide. The specification and drawings showed area smoke detection installed as per NFPA72 with each detector spaced at 36 inches on center up to 72 inches then reduced to 24 inches on center. To service the filters and belts on the fan motors, a moveable rack on which to install the smoke detectors would have needed to be built, which would be expensive not to mention cumbersome to service.

As presented by Low Voltage Contractors, VESDA provides the ability to detect smoke before it enters the fan duct work by utilizing a piping network that does not interfere with the fan filters or their ongoing maintenance. The VESDA system also offers early warning smoke detection capabilities.

A clamping system was designed to secure the piping at the return air grill, and with the use of unions, it can be disassembled during maintenance. The integrity of the system is maintained due to the fact that once the piping system is disconnected, a trouble signal is initiated at the fire alarm control panel. The union and piping network is installed in such a way that there is no possibility of reinstalling the piping wrong. Thus, the whole placement and lineup is kept intact according to requirements.

VESDA®



THE OUTCOME

A total of 79 VESDA VLC detectors were designed into this project – 21 locations where the pipe was installed in the plenum wall space and 58 locations where the VESDA sampling pipe was installed in front of the filters.

ABOUT THE INSTALLER

Low Voltage Contractors (LVC) is a leading Minnesota distributor, installer and service source for building owners, engineers, property managers and contractors for the latest technological solutions in systems for fire alarms; security; access control; CCTV, IP cameras and digital recorders; and paging and nurse call. LVC has demonstrated its capabilities in high-rise buildings, business and educational campuses, medical facilities and data centers. From Minneapolis or St. Paul to Duluth or Rochester, LVC works statewide to provide expert solutions that improve life safety and security for occupants and properties.



ABOUT VESDA

- Coverage up to 2,000 m² (21,520 sq. ft.) per detector, providing cost effective smoke detection, regardless of the size or configuration
- Flexibility in design of pipe networks, ensuring a cost-effective and fit for purpose fire engineering solution
- Customisable to address the unique environmental characteristics
- Add-on Analytics, with VESDA-E VEU/VEP, can identify the presence of unwanted diesel smoke
- Simple installation and verified performance at commissioning
- Low maintenance, saving both time and expense

"I was sold on the VESDA system because it provides code compliant detection and allows for regular maintenance without potential harm to engineering personnel or damage to the fire alarm system. We believe we'll see a good return on this investment"

Bob Sherwood
Engineering Manager
Hines

Project:

56-story office building

End User/Location:

Minneapolis, Minn.

Industry:

Retail/Commercial

Installation Partner:

Low Voltage Contractors Inc.

Design Partner:

Antal & Associates

Solution:

VESDA VLC