

## **VESDA – Fire detection**

The Queensland Association of Fire Investigators, seminar held at the QFRS Training complex at Whyte Island, in March this year, provided an opportunity for Vision Systems Ltd. to provide a demonstration and conduct some in situ tests of its **VESDA** Early Warning Fire Detection System. A simulated Warehouse application was constructed for which **VESDA** Aspirated detection is ideally suited.

A **VESDA** LaserPLUS detector was mounted external to the building with sampling pipes entering the rooms through a perimeter window. Despite the size and area in which the system was to detect, the pipe system was set out according to the relevant standards. Sampling pipe mounted on the ceiling covered both the upstairs and downstairs rooms. The system was also modeled using the **VESDA** "ASPIRE" computer software program and obligingly installed by Independent Fire Systems.

The demonstration began using pieces of electrical cable set on an electrical Hot Plate to simulate a slow developing incipient electrical fire. The hot plate was switched on at approximately 10:18:44 am.

Although detection was seen as early as 0.006%Obs/m at 10:20:06 am the "ALERT" threshold level did not alarm as the pre set default setting was 0.08 Obs/m. Once this threshold was reached an alarm was initiated at the detector. This would normally be linked to onsite Audio/Visual devices to alert the client of the potential problem.

Event Log figures and data obtained from the detector showed that the **VESDA** system reacted extremely well and as expected in this situation, providing enough time in a real situation to address any potential threat.

A FIRE 1 condition was reached after several minutes at a level of 0.2%Obs/m, a level still very early in terms of detection and well before any visible flames were present.

Warehouses these days, new and old, large and small present a high risk for fire. Open spaces, high racking and even higher ceilings make it difficult for the detection of smoke by conventional methods. Aspirating technology provides the best means in these applications for the detection of fire. Well-planned good quality detection of the right type is essential in these environments.

We would like to thank the organizers of the seminar for allowing us to participate.

### **Visions Systems Fire & Security**

If you would like any further information on VESDA systems please contact Paul Leslie on (07) 3246 5253.

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