CUSTOMER SUCCESS STORY

HYDERABAD INTERNATIONAL CONVENTION CENTRE - INDIA'S LARGEST CONVENTION CENTRE FINDS THE **VESDA** SMOKE DETECTION SYSTEM PROTECT THEIR HUGE, 15M HIGH CENTRAL HALL

The Challenge

The Hyderabad International Convention Centre (HICC) is the largest convention centre in India. It is South Asia's first truly world class convention centre located in Hyderabad- the burgeoning business hub of India. Designed for events of 50 to 5000 attendees, the HICC offers state-of-the-art facilities that are comparable to the world's best convention centers.

Opened in 2006, the HICC has a pillar-free internal hall measuring 6,480 square meters, with a 15m ceiling height. The hall can be partitioned into six smaller halls with the use of moveable walls.

During a convention, exhibition or other event the building will contain many people unfamiliar with the building layout. The HICC also contains millions of dollars of assets. Deaths, injuries and losses due to a fire in such environment would be catastrophic. The building's designers recognised the need for reliable and very early smoke detection system for the large open space.

But smoke detection in such a large open space is problematic. Smoke in a large open area will be highly diluted as it moves through the space, an effect compounded by air conditioning systems.

Smoke stratifies into a mushroom cloud in a such a large volume area. It may never reach a spot-type smoke detector installed on the ceiling.

Traditional smoke detection systems are not sensitive enough to detect smoke in large spaces unless the fire is already very large, creating sufficient heat and smoke. With smoke drifting with air drafts as it rises, addressability of smoke detectors is of little value in one large space.

PROJECT:
Cyberabad Convention Centre Private Limited

END USER/LOCATION:
Hyderabad, Andhra Pradesh, India
www.hicc.com

INDUSTRY:
Conventions & Exhibits

SOLUTION:
VESDA VLS detectors

Reaching smoke detectors installed on the ceiling is also difficult. Maintenance activities may require access equipment such as scissor lifts or scaffolding. It may also mean temporarily closing the venue or paying maintenance staff overtime.

With all these considerations the designers quickly ruled out the use of traditional spot-type detectors and beam detectors and searched for a more sophisticated smoke detection solution.

The Solution

A VESDA smoke detection system proved ideal for the HICC. Installed in convention centres around the world, including the Millennium Dome in London, the Hong Kong Airport and the Sydney SuperDome, VESDA detectors are proven to work in such large open spaces.

VESDA air sampling smoke detectors work by actively pulling air through a network of pipes, back to a detector. This in contrast to spot-type detectors that passively wait for the smoke to reach them.

VESDA air sampling smoke detection can be installed where the smoke will go, providing very early warning of a fire.

This is critical in large open spaces where the smoke may form a layer some distance below ceiling level. VESDA sampling pipes installed vertically down the walls will draw this smoke back to the detector.

The smoke detection design for the HICC consists of 10 x VESDA VLS detectors, protecting the entire convention centre. The detectors are conveniently located at the entrance of the ceiling catwalks, allowing easy maintenance access. VESDA Remote displays are installed at the Building Management System room.

This allows operators in the room to monitor smoke levels and check any alarms. The VESDA detectors are also integrated with a Siemens Fire Alarm Control Panel and the Siemens Building Management System.
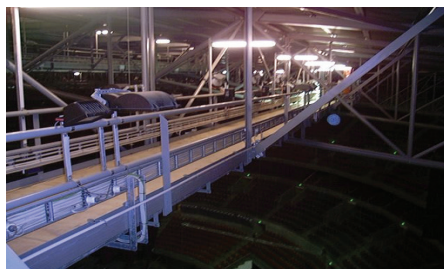
The VESDA detectors are installed at the entrance of the catwalk, 12m above the ground. They can be easily accessed for maintenance and testing

The Results

During the first 12 months of operation, the VESDA system has twice detected very low levels of smoke in the convention hall.

With the VESDA system supplying such early warning and a response plan detailing the appropriate action for the level of threat detected, the source of the smoke could be found and fixed without disrupting any events taking place at the time.

HICC management have also enjoyed the low maintenance costs of the VESDA system. With the detector unit installed on the easily accessible catwalks, testing and maintaining the units is easy. The sampling pipe network installed in less accessible places is virtually maintenance-free.

Ajay Kumar, HICC Chief of Security, commented on the state of the art risk management systems installed in the center: "We monitor movements of people and vehicles through physical security and CCTVs. We use metal detectors during special events. Fire alarm panels, smoke detectors, VESDA systems that are sensitive to smoke for halls, fire protection system, PA system, etc are inherent to modern day hotels."