

FirePro.

Airports Company South Africa

Photo: PretoriaTravel

Location: **Africa** Dealer: **FirePro South Africa** Application: **High Voltage Rooms, Cable Tunnels** Industry: **Airports & Aviation**



AIRPORTS COMPANY SOUTH AFRICA

Airports Company of South Africa Limited (ACSA) operates many of South Africa's busiest airports. The company currently manages a network of nine airports including the three main international gateways of O.R. Tambo International, Cape Town International and King Shaka International Airports. In 2013, these airports facilitated nearly 40 million passengers.

The Task

The engineers' mission was to safely replace the existing FM-200 clean agent gas systems installed in electrical substations with FirePro condensed aerosol fire suppression systems. The electrical equipment present in these electrical substations are relied upon to power air traffic tracking and guidance systems and for this reason no interruption to the functioning of equipment could be tolerated. The system must also be flexible to be installed in various locations and have low maintenance requirements.

FirePro Systems Used

FP-500

FP-5700

Why FirePro?

ACSA requested proposals from the industry to refurbish the existing systems when the drawbacks of a pressurised piped system with a GWP of 3500 were recognised. ACSA decided to replace all FM-200 systems in their substations with FirePro fire suppression systems. The FirePro modular solution eliminated the need for complex and unreliable piping networks as well as the provision of an activation failsafe when installing the BTA actuator in addition to electrical actuation circuitry. They have also been proven to be exceptionally reliable and require little maintenance over the years.

Risks Involved & Consequences

The fire risks involved in this particular application include electrical faults, battery compartment ignitions, accidents and of course human error. In a fire, any type of material/fuel may combust. It is therefore, vital that the fire extinguishing system is effective against various classes of fire and can operate as early as possible to avoid further harmful effects to assets or to human lives.



Results of Implementation

FirePro FP-5700 extinguishing units were installed to protect the main volumes and FirePro FP-500 to protect the cable trenches of electrical substations. The electrical substations consist of a number of main volumes which are monitored by an analogue addressable fire control panel with extinguishing release control panels installed at the entrance of each main volume. Both the units in the main volume and those in the cable trenches of the associated main volume would be activated simultaneously by the appropriate extinguishing release control panel. For increased protection a bulb thermal actuator was installed onto each FirePro extinguisher to ensure unit activation in the event of failure to the electrical circuitry.

