

# Fire protection

## AQ900 case study

Hospital disposal hold rooms

### Project

New Build - Neath Port Talbot Hospital, Wales

### Fire risk analysis

During the design stages, Architects identified eight internal disposal hold rooms that were a potential fire hazard. Each of these hold rooms was about 2 metres deep by 4 metres wide, and were located at the ends of wards on each of the 3 floors in the main hospital building. As these rooms were effectively on escape routes, they may be prone to deliberate acts of arson by members of the public, and although designed to be kept locked, could be used for illicit smoking. It was therefore decided that they should have the protection of a fire suppression system.

Due to the mixed nature of the likely contents, water was the preferred extinguishing medium. Sprinklers were considered, but as the rooms were 'land locked', it was not practical to provide drainage for large amounts of water.

### Further information

Tel.  
+44 (0)121 693 6888  
Fax  
+44 (0)121 430 6007  
E-mail  
mail@autoquench.co.uk

### Internet sites

[www.autoquench.co.uk](http://www.autoquench.co.uk)



### Solution

Early detection was considered important, and a conventional smoke detector was installed in each of the disposal rooms, connected to the main fire alarm. To automatically suppress any fire that may be started the AQ900 water-misting system was chosen.

The system is effectively an automatic fire extinguisher that discharges as a mist into the rooms when a fire is detected. The cylinders are discreetly located above the false ceilings, and the small misting nozzles are virtually un-detectable. Using an optical smoke detector, the electronic control unit gives a 30 second warning that an extinguishing cycle is to start, and has a self monitoring function, that will alert staff in the event of a fault developing. These compact low cost systems are completely safe and environmentally friendly.



Members of the Fire Prevention Association

Autoquench Ltd, Priory House, 132 Priory Road, Hall Green, Birmingham, B28 0TB, England  
[www.autoquench.co.uk](http://www.autoquench.co.uk)



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