

Notifier by Honeywell diagnoses the perfect fire detection solution for Calderdale Royal Hospital



With the number of unwanted alarms reaching intolerable levels, Calderdale Royal Hospital installed technology from Notifier by Honeywell to solve the problem and create a state-of-the-art fire detection system.

Calderdale Royal Hospital is a modern centre of excellence that first opened its doors to patients in April 2001, after becoming one of the country's first private finance initiatives (PFI). Operated by Calderdale and Huddersfield NHS Foundation Trust, it was built at a cost of over £100m by the Catalyst Healthcare consortium and Bovis Lend Lease provided the design and construction services.

It offers a full range of day case and outpatient services, an accident and emergency department, as well as a large range of specialist services. Although hospitals are dedicated to the preservation of health and life, they also have the potential to be high fire risk environments, so fast, accurate and reliable detection has a vital role to play in protecting people, property and assets.

Calderdale Royal Hospital's mental health and learning disability facility is a very large specialist unit. Dan

Lewins, Estates Manager at Cofely GDF Suez, which manages the site, says, "Unfortunately, patients within this part of the hospital were deliberately activating smoke detectors located in their rooms using steam from showers, aerosols and cigarettes. The problem had escalated to a level where the local fire and rescue service was being called out several times a week."

Unwanted alarms of this nature are a massive nationwide problem and government statistics show that there are approximately 272,000 false and unwanted alarms per annum. The financial annual cost to the UK has been estimated at £1bn and the potential for loss of life, due to services being diverted to an unwanted alarm attendance from a real fire emergency, is a very real possibility. Within hospitals, all unwanted alarms are disruptive and not without risk if people panic in the ensuing evacuation. However, if large numbers of unwanted alarms occur it also



creates an environment of disbelief and complacency, which may cause people to delay taking action when a real fire occurs.

To address the problem, Calderdale Royal Hospital contacted Shipley based Rosse Systems to find out what could be done. Dave Thewlis, the company's Sales Director, says, "With over 30 years of experience and knowledge in the fire detection industry, we have vast expertise in providing industry leading life safety solutions. Having been a Notifier partner for over twenty years, we know that its innovative technology is reliable, robust and has the ability to minimise unwanted alarms."

Central to Rosse Systems' proposal was the replacement of optical smoke detectors with Notifier's SMART⁴ devices. The acronym stands for self-optimising multi-criteria alarm recognition technology and by using a combination of carbon monoxide, heat, optical smoke and infrared flame sensing elements, SMART⁴ provides the earliest warning of the broadest range of fire conditions, whilst minimising the expense and inconvenience of unwanted alarms.

"SMART⁴ dynamically adjusts the detection profile of the device in response to the input from the sensors," explains Derek Portsmouth, National Sales Leader UK & Ireland at Notifier. "It normally operates at a high immunity level, changing to become very sensitive to fires when fire characteristics are sensed. In this way transient nuisances are monitored and ignored and the detector thinks before activating, making it the most intelligent device of its kind on the market today." Many of the patients in the mental health and learning disability facility are high vulnerable, so the work programme had to be meticulously planned to ensure that no more than 25 per cent of total fire detection cover was lost during each day. Dave Thewlis states, "We decided to replace a loop at a time and this meant that patients could be temporarily relocated while work was carried out. We fitted 70 devices in total and the ease of installation offered by SMART⁴ meant that the process ran incredibly smoothly."

"The events that took place at the Royal Marsden Hospital in London in 2008 offered a vivid reminder of the implications of a serious hospital fire. It's therefore something that we must avoid at all costs, while at the same time ensuring that unwanted alarms are kept to a minimum. Thanks to Rosse Systems' expertise and Notifier's pioneering technology, since installation no unwanted alarms have been reported from patients' bedrooms in the mental health and learning disability facility – an outstanding achievement that we are now looking to replicate across the entire estate."

Dan Lewins, Estates Manager, Cofely GDF Suez

The existing control panels were also replaced with Notifier's ID3000 products, which can accommodate between two and eight addressable loops. Each loop can support up to 198 devices, with a total of up to 255 zones per panel, and its modular design allows for a wide range of applications, facilitating installation and servicing whilst making it very easy to meet the requirements of a particular application.

The Calderdale Royal Hospital also benefits from Notifier's ONYXWorks system, a single-point of control, PC based, graphical workstation which displays information directly from the fire detection system, presenting floorplans, as well as a history manager that tracks, stores and filters events for viewing. This provides designated personnel with a consistent interface for all monitored equipment.

Since the SMART⁴ devices have been installed, unwanted alarms have been eliminated, which is not only good news for staff, patients and visitors but also the local fire and rescue service. Rosse Systems is currently working on a strategic service, maintenance and replacement programme, which will eventually see Notifier's solutions used across all other areas of the 21-panel network.

