



**eurotech**  
FIRE SYSTEMS LIMITED

# NRS Berkerley

ALPHATRACK FIRE SYSTEMS



Active Fire Project of the Year 2025





## Business Background

Working closely with specialist installation partners, Eurotech delivers solutions that prioritise reliability, compliance, and operational continuity in mission-critical sites.

For the NRS Berkeley nuclear decommissioning site, Eurotech worked with valued partner Alphatrack Systems to deliver a large-scale wireless fire detection upgrade across the 27-hectare Site of Special Scientific Interest (SSSI). The project required a fire safety solution capable of operating reliably in a live nuclear environment, while adapting to the ongoing physical and procedural changes inherent in a long-term decommissioning programme.

This highly complex installation was recognised at the Security & Fire Awards for Excellence 2025, winning Active Fire Project of the Year, reflecting the strength of the partnership and the innovative approach taken to safeguarding a nationally significant site.



# The Project

The NRS Berkeley site presented a unique set of fire safety challenges. The existing legacy fire alarm system was fragmented, obsolete, and prone to faults and false alarms, undermining confidence and disrupting critical radioactive waste handling operations. Temporary structures, ageing buildings, and subterranean vaults storing nuclear material further compounded the risks.

Eurotech and Alphatrack partnered to replace the legacy system with a fully integrated Sygno-fi by Eurotech wireless fire detection system, delivering full-site visibility and scalable protection across all operational zones. The solution comprised a network of four Advanced fire panels connected to 682 wireless devices, unified through a Drax graphical interface to provide real-time system oversight from a central control room.

A phased approach ensured uninterrupted fire protection throughout installation, including a crossover period where the legacy and new systems operated in parallel. This allowed the project to progress without compromising safety on a live nuclear decommissioning site.







# Award-Winning Wireless Detection

The Sygno-fi by Eurotech range of high-performance open protocol EN54-25 wireless detection, control and alarm devices offer exceptional capabilities, quality and reliability. Combined with user-friendly survey, install, commissioning and maintenance software, the Sygno-fi range revolutionises the wireless fire systems market.

The wireless platform is suitable for both small-medium or large sites, with the capability to handle up to 128 devices per wireless translator and 240 per hybrid loop. There is also a 10-year battery life on sensors, call points and inputs and up to five years on output devices, sounders and VADs.



# Challenges Overcome

The scale and complexity of the NRS Berkeley site presented multiple challenges across people, processes, and technology. The 27-hectare site includes subterranean nuclear waste vaults, remote portakabins, metal-clad structures, and aging infrastructure, all operating under strict safety and access controls.

To address this, Eurotech engineers conducted an intensive two-week on-site survey, working under Alphatrack's name to map every building, access route, and future development area. In locations where drilling was not permitted, bespoke push-fit mounting solutions were developed to allow secure installation without compromising safety protocols.

Environmental factors were also addressed, with devices protected using rubber gaskets and IP-rated enclosures where dust and debris posed a risk. Key user confidence - previously eroded by repeated faults and false alarms - was rebuilt through clear communication, training, and demonstrable system performance improvements.







# The Solution

The completed system delivers a holistic, site-wide fire detection solution that operates well above minimum compliance requirements. All buildings and zones are now connected into a single, centrally monitored network, providing unprecedented visibility and control.

In the event of a fire, detection is limited to the affected zone, preventing unnecessary site-wide evacuations and allowing targeted response aligned with the site's existing evacuation strategy. The Drax graphics interface pinpoints device location instantly, while remote maintenance capabilities significantly reduce inspection and testing time.

Crucially, the wireless system is fully scalable, allowing fire protection to evolve alongside the ongoing decommissioning process. Temporary structures can be added, moved, or removed without re-engineering the system, ensuring long-term resilience and operational efficiency for a mission-critical site.





# Testimonials

"Working with Eurotech and Alphatrack has transformed how we manage fire safety at NRS Berkeley. The old system was unreliable and caused regular false alarms – not what you want when you're moving radioactive materials. The new wireless system gives us complete visibility, confidence, and flexibility. We've had no false activations since it went live, and our staff feel safer than ever. It's a game-changer."

- Site Fire Safety Manager, NRS Berkeley

"Working with Eurotech on the NRS Berkeley project was a seamless and highly collaborative experience. Their extensive knowledge of the Sygno-fi system and consistent technical support were vital in delivering a robust solution for this complex site. We value and trust Eurotech's support on projects of this scale, particularly where safety and reliability are critical."

- Mitchell Rose, Head of Sales, Alphatrack Systems





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