

## Devonport Royal Dockyard, Plymouth

**Location: Plymouth, Devon**

**Industry sector: Maritime support**

**Client: Babcock Marine, the major support partner to the Royal Navy**

Her Majesty's Naval Base (HMNB) Devonport is one of 3 operating bases in the United Kingdom for the Royal Navy. HMNB Devonport is located west of the city of Plymouth, and is the largest naval base in Western Europe. The co-located Royal Dockyard is owned and operated by the Marine division of Babcock International Group (BM), who took over from the previous owner Devonport Management Limited in 2007. The base is commonly called Devonport Royal Dockyard.

The Royal Navy Dockyard consists of 14 dry docks, 4 miles (6 km) of waterfront, 25 tidal berths, 5 basins and an area of 650 acres (2.6 km<sup>2</sup>). It is the base for 7 of the Trafalgar class nuclear powered hunter killer submarines and the main refitting base for all Royal Navy nuclear submarines. Work was completed in 2002 to build a refitting dock to support HMS Vanguard class Trident ballistic missile-armed submarines.

Trinity Protection Systems has worked with Royal Devonport Dockyard over the last 10 years, supporting the dockyard site with on going maintenance and system expansions for their fire protection systems.

In 2009 Devonport Dockyard implemented a programme to upgrade their fire protection systems. This was essential as the original system was working at full capacity, making additions difficult to achieve, along with which the age of the system was leading to an increase in problems with faults and breakdowns.

Trinity was selected to carry out the upgrade project based on their familiarity with the site systems and their expertise in engineering and commissioning of complex network systems.





The initial part of the project involved installing and linking 31 new fire alarm panels, bridging the existing network to create 2 domains to increase capacity of the system plus 4 graphic terminals. It was essential that this work was carried out without disrupting the fire detection provisions on site.

There are a further 58 standalone systems covering other buildings on the site, a number of these are interfaced through the panels on the main network. Some of these systems were newly installed, such as the Nemsfac Building. This system was installed by Trinity in to an industrial building, 130m x 30m, located on the east side of 5 Basin including a basement varying from 6 - 12m deep and an 18m deep pit to accommodate specialist training equipment. It includes offices, workshops and special clean areas to support the nuclear processes.

The project involved compliance to nuclear specifications. The building structure is designed and constructed to meet strict nuclear seismic requirements due to its proximity to adjacent nuclear sensitive operations within the dockyard.

Trinity previously supplied and commissioned specialist smoke detection for harsh environments, which were installed around the Trident refit 9 dock area including the subways. In addition to this a further risk assessment of the subways identified the need for smoke detection throughout all of the subways, as this forms part of the escape route from the lower dock areas.

The Armada Project was also part of the HMNB Devonport developments. The purpose of this project was to rebuild and refurbish a number of buildings to provide single living accommodation for 1,650 personnel of all ranks. Trinity were awarded the contract to supply, install and commission new fire alarm systems to each of these 7 buildings.

#### Installed

- 43 Fire alarm panel
- 13 Mimic panels
- 5000 Devices (in main site)
- 1850 Detectors (Armada area)
- 4 Graphical panels
- 100 Buildings