bam Health, Safety & Wellbeing Case Study

Wireless Emergency System (WES)
Dunfermline High School – Scotland


The Dunfermline High School Development, Fife, Scotland

Project team

BAM people involved:

Martin Cooper (Construction Director)
John Hamill (Project Manager)
Robert Farren (Site Manager)
Helen Fitzpatrick (Regional Buyer)

Other organisations involved:

Ramtech Electronics

Key words:

Health, Safety & Wellbeing
Innovation
Cost Reduction
Flexibility / Adaptability

Wireless Emergency System (WES) Installed:

BAM Construction have been engaged in the construction of a new £32.5 5m high school for Fife Council in Dunfermline.

As the development progresses the requirement to have an appropriate and functional emergency alarm system which satisfies current Health and Safety at work regulations continues to be an important matter.

The site have considered several options including the traditional rotary hand bells which were dismissed as being inadequate in all respects for a site of this size. Also considered was a wired system with break glass points and fixed alarm sounders, however these systems are inflexible and are difficult to adapt on site. They also have to be stripped out upon completion and rely upon a master control panel being established as part of the set up.

Left: WES Fire Point 1 (FP1)
Weatherproof unit, C/W 122Db siren and built in silent strobe.

Right: WES Silent Tester (ST1)
Silent test unit

A WES equipped fire point at Dunfermline High School

WES System – Key Features

- ✓ Completely wireless
- ✓ 122db Siren & strobe alarm
- ✓ Bluetooth links all sounders
- ✓ Silent test function
- ✓ Easy installation
- ✓ No control panel required
- ✓ Easily moved & adapted
- ✓ Weatherproof / Waterproof
- ✓ Easy activation and reset
- ✓ ETSI EN300-220-1 Compliant
- ✓ 2km Range between alarms

The WES System

The site team felt that the traditional methods of emergency alert all had various drawbacks and decided to investigate if there was another possibility which offered these key elements:

- Compliance with Health & Safety Law
- Flexibility to be adapted on site as works progressed
- Value for money

Through the Site Manager who sourced the product the site team feel that in the WES system they have found a product which offers all of the above and is ideally suited to use on BAM'S construction sites.

The Wireless Emergency System (WES) has been developed by Nottingham based electrical company Ramtech Electronics who specialise in various types of wired & wireless alarm systems.

The site team were given a demonstration of the WES system and were impressed at its ease of use and versatility. Other benefits include the fact that the alarm points can be tested in silent mode which removes the need to sound the alarm on a weekly basis. Furthermore there are no break glass as the alarm is activated (and reset) by lifting a cover and depressing the switch below.

Upon reviewing the site requirements a quote was obtained by the regional buyer from the manufacturer / supplier for the 26 number WES Fire Point 1 which is a sturdy weatherproof unit that incorporates the alarm activation and reset button, a 122db sounder and an integral strobe as well as the test LED.

Although the quote for the WES system did involve a larger initial outlay than a wired system this is offset by the fact that all 26 units and the test unit now belong to BAM Construction as opposed to the wired system which would remain the property of the temporary electrical contractor, furthermore the units can be split up at anytime and relocated on other sites.

The units on site are all linked via Bluetooth connection and the activation of one alarm will automatically activate the other sounders and strobes, however the alarms can be set to work independently or placed into groups to form "zones".

The simplicity of this system means that the site can adapt, move and reconfigure the system as the needs of the project develops without the requirement for an engineer to be called.