Protected the Protector!

Explosion Protection for Firefighting Systems on Oil Platforms

At a Glance

- ATEX and IECEx certification for Zone 1
- Protects the firefighting system from explosion hazards
- Fully skid integrated
- Robustness
- High corrosion resistance

The Application

Tragedies aboard oil rigs such as Piper Alpha and Deepwater Horizon have demonstrated the importance of fully functioning safety systems to detect and stop fires. Compressed air foam systems (CAFS) are effective in fighting oil fires on offshore platforms due to their consistently high foam quality, protection against fire reignition, and protection of still unaffected areas. This system is designed and manufactured by Ai Group, the well-known fire protection control systems company based in France, and is currently running on an oil platform off the coast of Nigeria.

The Goal

On oil rigs, there is always a risk of hazardous gas atmospheres classified as Zone 1 or Zone 2 or Class I, Division 1 or 2. As a result, the fire safety control system itself needs to be protected. To prevent the control system from causing an explosion, it has to be adequately equipped for use in Zone 1 hazardous areas.

The Solution

The explosion protection was achieved by designing a rigid flameproof control station using an EJB series Ex d enclosure made of highly corrosion-resistant 316L stainless steel.
The indicating lights and actuators, such as pushbuttons and control switches, have the “flameproof” type of protection, making them ideal for the harsh environments encountered on the rig.
The control station is well integrated and centrally located within the fire protection control system skid.

The Benefits

A fully ATEX and IECEx certified flameproof control station provides the explosion protection safety within the fire protection control system. This ensures that the firefighting system functions properly and reliably in case it is really needed. The Ex d enclosure is also extremely durable, even in hazardous areas, because of its robust construction and high corrosion resistance.

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