

Novec 1230 fluid selected to protect all broadcasting outlets across Saudi Arabia

Saudi Broadcasting Corporation (SBC) is a government authority organised under the Ministry of Culture and Information, responsible for all media in Saudi Arabia. SBC operates almost all broadcasting outlets in the Kingdom, including approximately 82 TV stations and more than 18 radio stations. It is considered one of the fastest moving organisations in Saudi Arabia.

Fire protection has been a mandatory part of all SBC premises compliant with regulation developed by Saudi Arabia Civil Defence. Originally all SBC premises were protected by halon systems but in 2005 the SBC started to seek a more sustainable solution.

Sustainability: a key driver

Despite the effectiveness of halons in suppressing fire, they were phased out of production by the 1987 Montreal Protocol due to their high Ozone Depletion Potential. In October 2016 the Montreal Protocol went a step further in mandating phase-down of HFCs such as FM-200®, the fastest growing greenhouse gases which were developed in the 1990s as halon replacements, but have themselves significant Global Warming Potential. For the Gulf fire safety market, set to reach \$3.15bn by 2020, sustainable fire suppression agents and advanced fire detection technologies are playing a vital role in shaping the market.

Ahmad Abdulftah Bugis, Director of Power and HVAC projects in the Engineering Affairs department at SBC, comments: "Sustainability was the main deciding factor when it came to upgrading our fire protection systems. We were keen to work with safe agents like Novec... it's really important to participate in environmental issues."

After evaluating various options including FM-200, CO₂ and chemical powders, SBC eventually selected 3M™ Novec™ 1230

Fire Protection Fluid as the standard fire protection agent in all new SBC buildings. Mr Bugis has also been overseeing the process of retrofitting older halon systems with systems using Novec 1230 fluid, a significant undertaking considering the scale of SBC's assets. "Some of our systems are over 25 years old" says Mr Bugis "Several systems were replaced but some of them are original. We are planning the retrofit in steps, over a 5 year schedule which is still ongoing."

System compatibility and saving space

"Compatibility with existing facilities is a really important consideration" continues Mr Bugis, "When we plan the retrofit I seek to make the least changes to the system, for example, the pipes, the sprinklers. Of course the large items need to be changed, but costs of installation can be reduced where the system compatibility is high. I have a TV station already protected by an old fluorocarbon gas system. When we started the retrofit it became apparent certain components were still in very good condition. In these cases we suggested the least changes to keep the costs down."

Space saving is a further benefit realised



by SBC. Since Novec 1230 fluid is stored as a liquid rather than a gas, it requires significantly less cylinders than a comparable inert gas or CO₂ based system.

Maintenance

Ease of service and maintenance were an important driver in selecting the right fire protection system. Says Mr Bugis: "Ease of refilling is an important benefit, and our chosen system is simple to operate and maintain. In the event of a discharge, we can re-fill on site instead of taking out the cylinders and sending them to a supplier."

Safety

With Novec 1230 fluid the SBC can be assured that they have invested in an agent with a high margin for human safety – putting out fires at concentrations that don't compromise the safety of occupants in the protected space. Novec 1230 fluid has the largest margin of safety among all other chemical clean agents, CO₂ and inert gas mixtures because its use concentration is much lower than its No Observable Adverse Effects Level (NOAEL).

These safety characteristics are especially critical when protecting occupied areas, such as the TV and radio stations being protected at SBC.

Future-proof

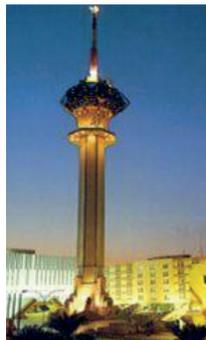
As the retrofit project continues, Mr Bugis is satisfied that SBC has invested in a future-proof fire protection system. "We considered other fire protection solutions but I'm convinced about the benefits of Novec 1230 fluid, I think this is still the safest option. The installation is going smoothly so far and I'm pleased to have invested in a system that will stand the test of time".



Ahmad Abdulftah Bugis



An SBC radio station control room



SBC TV tower in Riyadh

3M™ Novec™ 1230 Fire Protection Fluid is an advanced clean agent fire suppression material, based on a proprietary chemistry from 3M. It was designed to address industry needs for clean agent fire protection that is safe and effective, while offering a sustainable environmental profile that no other halocarbon agent can match. This includes: Zero Ozone Depletion Potential; a 5-day atmospheric lifetime, and a Global Warming Potential of 1. Because of these properties, Novec 1230 fluid is not targeted for phase-down or regulatory restrictions anywhere in the world. It is approved for use in total flooding fire suppression systems by the U.S. EPA and most major regulatory bodies. All of this makes Novec 1230 fluid today's sustainable choice for clean agent fire protection.

The 3M™ Novec™ Brand Family

The Novec brand is the hallmark for a variety of proprietary 3M products. Although each has its own unique formula and performance properties, all 3M™ Novec™ products are designed in common to address the need for safe, effective, sustainable solutions in industry-specific applications. These include precision and electronics cleaning, heat transfer, fire protection, protective coatings, immersion cooling, advanced insulation media replacement solutions and several specialty chemical applications.

3M™ Novec™ Engineered Fluids ■ 3M™ Novec™ Aerosol Cleaners ■ 3M™ Novec™ 1230 Fire Protection Fluid ■ 3M™ Novec™ Electronic Grade Coatings ■ 3M™ Novec™ Electronic Surfactants ■ 3M™ Novec™ Dielectric Fluids

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