



# Novec™

Brand

## Answering the call 24-7: Clean agent fire suppression in 911 call centers

### Connectivity saves lives

Across the U.S., there were more than 212 million emergency calls in 2017 alone.<sup>1</sup> Each of those calls goes to a dispatcher in a 911 call center, who manages the crisis and helps get the right first responders to the scene. In each of these millions of situations, time and responsiveness are vital: it is mission critical to ensure that 911 call centers stay up and running in all circumstances.



### A common threat

911 call centers are full of data, processing and communication equipment to help dispatchers do their jobs. But that equipment can pose a significant fire risk. Tightly packed technology heats up as it's working, and there is always an increased fire danger from issues like short circuits, power surges, faulty connections and other electrical malfunctions.

#### References:

<sup>1</sup> (2017) 911.gov. National 9-1-1 Progress Report. Retrieved from <https://www.911.gov/pdf/National-911-Program-Profile-Database-Progress-Report-2017.pdf>

<sup>2</sup> (2012) FM Global. FM Global Property Loss Prevention Data Sheets 5-32, Data Centers and Related Facilities.

If a fire starts, the first priority is the health and safety of the call center staff. Evacuation is often necessary, making it challenging to continue operations. Even once staff are safe, suppressing the fire can be complicated. Traditional overhead sprinkler systems can cause extensive and permanent water damage to essential equipment such as computers and data servers – sometimes even more than the fire caused – and systems must typically be shut down for damage assessment.

Meanwhile, during evacuations and damage assessments, the call center's operations are impaired even as emergencies continue in the community at large.

### Thinking prevention first

Because of the operational risk of fire, a 911 call center in one of the largest metropolitan areas in the United States decided to invest in a clean agent fire suppression system to help protect its people, assets and operations. These systems are recommended by standards agencies such as FM Global to protect data centers and critical systems:

*“When it is essential to reduce equipment damage from an incipient fire to minimum possible levels, or to facilitate the return to service, provide an FM Approved clean agent fire extinguishing system with detection to protect the data equipment within the data processing equipment room.”<sup>2</sup>*

The center chose 3M™ Novec™ 1230 Fire Protection Fluid for its clean agent. Novec 1230 fluid is electrically nonconductive and evaporates cleanly, without leaving any residue – so equipment is not damaged by a system discharge. It has a high margin of safety for occupied spaces, helping to protect call center staff. And it can

quickly extinguish a fire at the incipient stage, typically allowing the facility to remain in continuous operation, even during a fire event.

In addition, it has an outstanding environmental profile. With zero ozone-depletion potential, a global warming potential of less than one and a short atmospheric lifetime, Novec 1230 fluid can help emergency call centers meet ISO and other global and local sustainability standards.



## Put to the test

Since the call center became operational, the fire suppression system has been put to the test. An electrical power surge burned a surge protector in the data center. Its Very Early Smoke Detection Apparatus detected a potential incipient fire and activated the fire suppression system. From detection to discharge to incident resolution, there was no power interruption, no down time, and all systems remained completely operational.

*“The system functioned exactly as promised,” said Scott Christensen, Radio Communications Technician. “We saw no residue or damage to our electronics and there was no interruption in service at our 911 call center.”*

As 911 call centers become increasingly digital, Novec 1230 fluid will continue to help protect dispatchers and their systems from fire – so they can help protect the rest of us.

**Smart. Safe. Sustainable.**

## 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 Novec products are designed in common to address the need for smart, safe and 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™ Insulating Gases

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