High Voltage Direct Current (HVDC) converter stations transport electricity. Fire safety protects people, assets and the environment—while providing service without interruption. **SAFETY PROTECTION IS PARAMOUNT.**
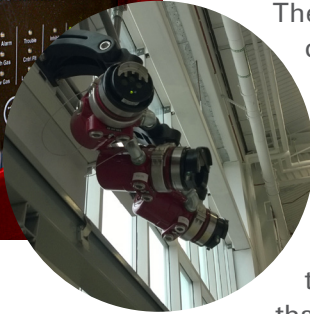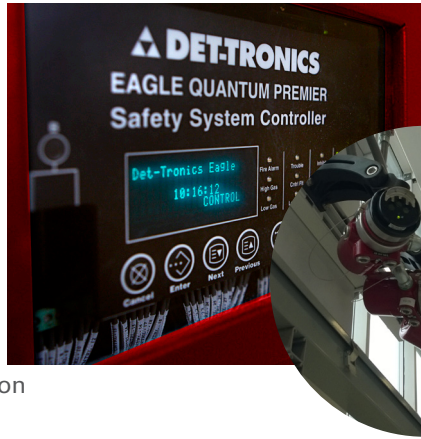
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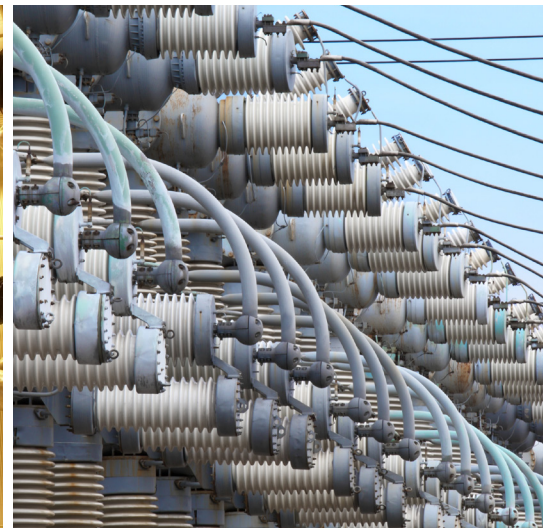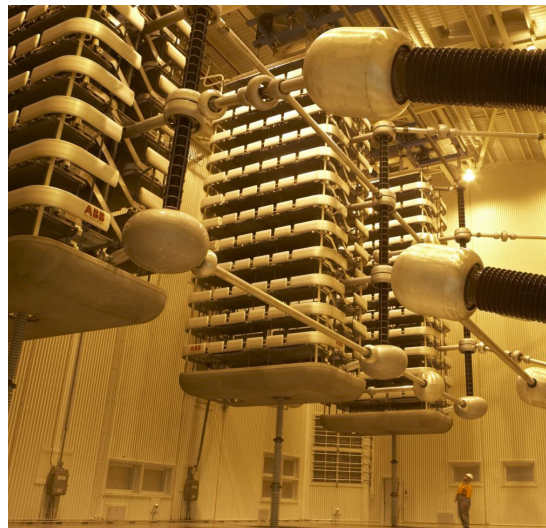
IMPROVE FIRE PROTECTION

Code requires a fire detection system for HVDC Converter Stations. However, traditional fire detection systems, such as smoke detectors, are reactive and slow to respond, creating potential property and life safety hazards. Adding an ultraviolet/infrared flame detection system mitigates event escalation, reduces threat to life safety, facility downtime and cost of asset repair.

FIRE HAZARD DETECTION CHALLENGES:

▲ Electromagnetic interference (EMI)

▲ Obstructions from racks, electronics modules and other equipment

▲ Converter room access difficulties during operation

COMPLETE SOLUTIONS MUST:

▲ Provide optimal detection—IR for flame detection and UV for arc detection

▲ Ignore false alarm sources

▲ Place and aim detection equipment for optimal coverage

▲ Minimize disruptions and shutdowns

▲ Take executive action to maintain HVDC converter station operability

▲ Follow detection and wiring installation guidelines

▲ Adhere to global and regional codes, standards and best practices such as:

    ▲ NFPA 850—Recommended practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations

    ▲ IEC 60076—Power Transformers

    ▲ IEEE 979—Guide for Substation Fire Protection

DET-TRONICS—PIONEERS IN THE FIELD OF FLAME DETECTION SYSTEMS FOR OVER 45 YEARS, IS YOUR TRUSTED GLOBAL SOLUTION PROVIDER FOR SPECIAL HAZARD AND CRITICAL PROCESS AREAS

Det-Tronics offers high–performance detection equipment, and provides the support and expertise needed to meet—and exceed the requirements of Authorities Having Jurisdiction (AHJ):

▲ Design and implementation support by fire protection and application engineers

▲ Custom systems built to meet needs of unique installations

▲ Ongoing service and support to maintain the system

DET-TRONICS SOLUTIONS

Fire detection in HVDC converter stations requires a multifaceted approach. Faulty or overvoltage electronic modules in the converter rooms can burst into flames. The **X3301 Multispectrum IR Flame Detector** provides ideal protection with quick response.

Electronic modules can cause arcing. The **X2200 UV Flame Detector** detects these events and is capable of providing notification in under a second.

The **Eagle Quantum Premier® (EPQ)** from Det-Tronics is a configurable, distributed, fault tolerant intelligent safety system that offers a certified fire, gas and suppression solution. The EQP is capable of executive action communication with process control systems.

Fire Protection from Det-Tronics provides:

▲ A reliable solution, during operation, to detect arcing or burning modules in non-accessible converter rooms

▲ Shutdown of burning or faulty modules to allow station operability or initiate an orderly shutdown

▲ Quicker response than smoke and heat detectors

▲ Fewer unscheduled shutdowns which reduces costs

▲ Protection of infrastructure

▲ Improved life safety

CHECK OUT YOUTUBE VIDEOS:
X-Series Flame Detectors

QUALITY // PROTECTION // SOLUTION // FLEXIBLE // FUNCTIONAL // RELIABLE // EXPERIENCED // ENGINEERED // ADVANCED

FlexSonic® Acoustic Leak Detector

X3301 Multispectrum IR Flame Detector

PointWatch Eclipse® IR Combustible Gas Detector

FlexVu® UD10 Universal Display with GT3000 Toxic Gas Detector

Eagle Quantum Premier® Safety System