

# Nuclear Facility Fire Alarm Solutions

## An Experienced Resource

Limited engineering resources and tighter inspection and maintenance budgets are challenging operations personnel at U.S. nuclear plants. As a result, environmental, regulatory, economic and operational drivers are changing the nuclear industry and will influence it for the next 60 years. From plant life extensions to the next generation of plants, these trends could affect plant safety systems, especially fire alarm systems inside and outside the plant critical power block boundaries.

With more than 40 years of nuclear power plant fire protection engineering experience and 15 years of fire alarm system modification/implementation experience, AREVA can deliver comprehensive fire alarm system solutions to help resolve the obsolescence/compliance issues for meeting the plant extended life. These comprehensive solutions are based on decades of field-proven project and systems analysis experience. It is all about mitigating fire alarm system operational cost pressures with innovation backed by global technological leadership from a single, responsible source.

## AREVA Advantage

AREVA delivers a focused, comprehensive conceptual analysis of existing systems within the context of your plant's design and modification legacy. We also provide a measured, balanced approach to system upgrades and technology migration, including:

- System compatibility with existing cabling and field devices.
- Selecting the system technology that best suits the environmental application (i.e., incipient detection in areas with high radiation exposure to address device longevity and operating staff dose exposure).
- Taking advantage of new addressable device technology for maintenance cost reductions.
- Better operator emergency response with specific alarm annunciation information.
- Reduced overall system life cycle costs.

AREVA is focused on creating the most cost-effective solution, tailored specifically to meet the particular needs of your facility.



*State-of-the-art Fire Alarm System Technology*



## Regulatory Expertise

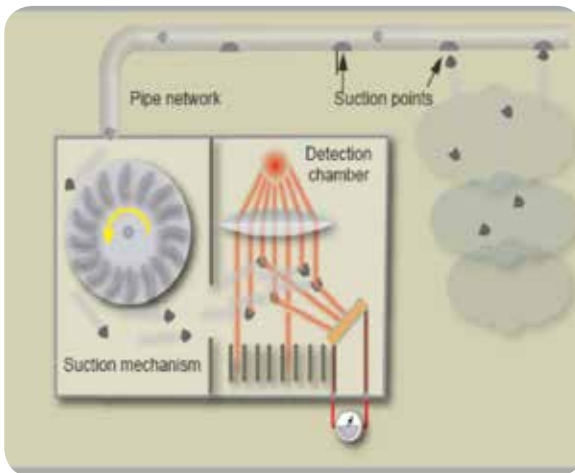
AREVA is a leader in participating in the development of NFPA 72, National Fire Alarm Signaling Code in addition to supporting the development of other important fire protection standards, industry working groups, and industry forum presentations. Our team will ensure the transition to new alarm system technology will comply with the plant's licensing basis. Through our regulatory expertise, we understand the need for alarm system interface requirements and limitations (e.g., existing device/circuit compatibility with the alarm vendor's equipment while maintaining UL Listing & NFPA 72).

## Fire Alarm System Design Expertise

AREVA's fire protection engineering capabilities include specific working experience with multiple vendor alarm system products for furnishing the most advanced, highly reliable, and high-performance fire alarm systems for the nuclear power industry. We were instrumental in developing the design changes required to install alarm system upgrades at five different plant sites in addition to supporting the implementation of the packages.

Our projects are managed to meet our client's expectations including:

- Meeting project scope of work and objectives.
- Establishing project team interfaces and AREVA's team resources.
- Following client document flow and control interfaces.
- Maintaining agreed project costs and schedule.
- Ensuring implementation of applicable AREVA and Client QA program requirements.



## Features and Benefits

- A comprehensive solution to address Fire Protection Licensing variables (e.g., license basis, fire watch and administrative control requirements, etc.).
- Our team devotes uncompromising attention to quality and process flexibility (e.g., we can develop modifications, support client package development and supply system material if requested).
- A single point of responsibility, if requested.
- Replacement system operation and maintenance cost saving provisions with temporary system component outage flexibility.
- State-of-the-art fire alarm systems have enhanced monitoring and status reporting capabilities.
- Faster detection and detailed alarm annunciation information for operator emergency response.
- The installation of the new alarm system is always evaluated for ongoing support for hardware and software components through the duration of your plant's life cycle.

AREVA can provide a single source for all your facility-specific fire alarm system needs from conceptual design through final installation and testing. We have provided effective methods for reducing construction and testing costs by utilizing state-of-the-art alarm system equipment and AREVA engineering experience. Our team is poised to help deliver significant overall fire alarm system cost savings and value. We thrive on generating safety and operational dividends that will resonate across your facility.

### AREVA Inc.

7207 IBM Drive, Charlotte, NC 28262

### Joel Drennan

Product Manager

Joel.Drennan@areva.com

Cell: 682.216.4510

[us.areva.com](http://us.areva.com)

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