

Fire Protection Design Services



Our extensive design experience includes every type of system to protect your facilities and hazards.

More Capability and Services

AREVA offers quality, cost-effective fire protection design services to a wide range of industries and facilities. Our staff includes registered fire protection engineers, NICET certified technicians, and CAD designers who have designed protection for virtually every type of occupancy and hazard. Our fire protection design services include:

- Modification implementation
- Water supply systems
- Water-based suppression systems
- Gaseous-based suppression systems
- Fire, gas and leak detection/alarm systems
- Passive barrier/architectural features design

Comprehensive Design Change Implementation

AREVA offers complete fire protection modification and engineering change package development and implementation services. With AREVA's full range of engineering services, including our Plant Modifications Engineering Group and the ADZ Joint Venture, plant fire protection changes are implemented through engineering change package development as well as Engineering/Procurement/Construction (EPC) contracts. AREVA offers all facets of fire protection services from consulting services to construction implementation in support of plant design and operational changes.

Water Supply System Design Experience

AREVA has designed independent private water supply systems as well as those interconnected with municipal and site service water distribution systems. We understand our clients' needs and the importance of maintaining adequate supply capacity under normal and adverse delivery conditions. Our dedicated design team will help you ensure system reliability by specifying durable components and piping for the prevailing service conditions. Our water supply services include:

- Elevated and surface water tanks
- Underground and above-ground fire mains
- Pump and prime mover arrangements
- Hydrant and hydrant hose house distribution/arrangement
- Addressing piping degradation issues

Water-Based Suppression Systems

Our engineers have designed water-based suppression systems to protect nearly every type of facility and hazard. We follow advances in suppression system and component design to offer only the latest protection and maximum operational economy.

AREVA water-based system design services include:

- Wet- and dry-pipe sprinklers
- Low- and high-expansion foam systems
- Pre-action and deluge sprinklers
- Standpipe and hose stations
- Water spray systems
- Automated and manual monitor nozzle systems
- In-rack, ESFR and high-density applications
- Water mist systems (dual and single-fluid technologies)

Gaseous-Based Suppression Systems

Similar to our experience with water-based systems, our gaseous-based suppression system design experience includes numerous different hazards and occupancies. We understand the benefits and limitations of every type of gaseous system including life safety concerns, environmental impact and chemical deposition concerns, and life-cycle costs including recharge, testing and maintenance. Gaseous agent system design services include:

- Clean agent extinguishing systems (such as halocarbons, inerting agents)
- Low- and high-pressure carbon dioxide systems
- Dry chemical systems
- Alternate acceptance testing methodologies

Fire, Gas and Leak Detection/Alarm Systems: More Versatility

AREVA alarm system design experience includes hard-wired, multiplex, addressable and multi-point programmable logic systems. We have designed and specified detection schemes, alarming and notification, signaling, voice communication, and agent releasing/safeguards activation systems for industry, power T&D and generation facilities, schools, hospitals, record storage centers, high-rises, offices and other applications. We offer teaming with Siemens Industry, Inc. for full turn-key fire alarm and detection services. Our services include:

- Smoke, heat, flame and incipient fire detection
- Evacuation/voice alarm
- Toxic gas monitoring
- Local and networked fire alarm systems
- Liquid leak detection
- Proprietary signaling systems
- Security/intrusion alarm
- Audible/visual/tactile notification design (ADA compliant)
- Critical process monitoring

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Given the critical nature of fire protection systems, we tailor our designs to meet your protection and performance needs.

Passive Barrier/Architectural Features Design: Attention to Detail

Our team of professionals can design and specify fire-resistant barriers for new facility construction as well as plant retrofit and expansions. Working with architectural staff, we can provide criteria for ensuring the aesthetic incorporation of passive barriers into an overall building design.

Our services include:

- Fire wall location/construction
- Through-penetration seal system design
- Egress/exit enclosure construction/separation design
- Interior finishes
- Equivalency justification for rating reductions
- Fire wrap envelope systems
- Protection of atrium, large opening qualification
- Fire door, fire/smoke damper design
- Fire testing services
- Explosion venting analysis and design

Features and Benefits

- High-quality and cost-effective fire protection design services from an experienced and versatile staff
- Ensure water supply needs are met
- System reliability you can count on
- Only the most advanced protection
- Aesthetically pleasing solutions
- Full understanding of nuclear power design change package development and documentation requirements

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