

Job Details

Job Title Fire Protection Engineer (Early/Mid-Career)
Location Albuquerque, NM
Regular/Temporary Regular

Job ID 656513
Department 04879
Full/Part Time Full-Time
Favorite Job ☆

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What Your Job Will Be Like

We are seeking a Fire Protection Engineer

On any given day, you may be called on to:

- Serve as a Subject Matter Expert for fire protection matters at Sandia.
- Perform facility and life-safety evaluations to determine fire risk and provides effective and efficient engineered solutions to meet applicable building and fire codes, regulations, and standards to mitigate risk.
- Review and approve architectural and fire protection drawings, engineering calculations (e.g., hydraulic, battery, voltage drop), and other design documents for new construction or modification of existing facilities.
- Develop and implement fire prevention programs and procedures in an attempt to eliminate personnel injury and minimize property damage due to fire and explosion.
- Develop inspection, testing, and maintenance requirements for fire protection systems.
- Support customer operations teams to ensure facility fire and life safety is appropriately addressed in work planning and controls.
- Review and approve impairment requests (e.g., fire alarm, fire suppression systems).
- Develop appropriate equivalency and exemption requests.
- Develop emergency services Baseline Needs Assessment to document the minimum services needed to support life safety and property protection.
- Perform fire characterization analyses for a high volume of diverse chemical materials, enabling Research and Development organizations to maintain laboratory operations within the building safety basis envelope.
- Apply research to the design, development, construction, installation, and decommissioning of electrical, mechanical, civil, structural, and architectural elements.
- Work with line management to develop performance-based solutions that ensure mission work complies with the Department of Energy (DOE) fire safety objectives and the intent of fire and life-safety code requirements.
- Develop fire hazards analyses for nuclear facilities and non-nuclear facilities with unique fire safety risks.
- Employ the scientific method to perform fire investigations to determine cause and origin, and performs engineering analyses to determine if any breakdown in the fire protection plans and procedures may have occurred.
- Process and support performance-based designs that are a departure from the prescriptive code requirements that enable mission work while effectively protecting workers, the public, the environment, and key national assets.

This position requires travel in support of work assignments; this position resides in Albuquerque, NM but could also provide support to other SNL sites (e.g., California, Hawaii, and Nevada).

Qualifications We Require

- Bachelors of Science degree, or within six months of obtaining one, in fire protection engineering/technology; or Bachelor's or Master's degree, or within six months of obtaining one, in a relevant discipline (e.g., Mechanical, Electrical, Civil Engineering); or other Bachelor's or Master's degree and is a licensed Fire Protection Engineer.
- Experience working with Microsoft Office

Qualifications We Desire

- Desired to obtain a Master's degree in Fire Protection Engineering/Technology
- Understanding of applicable federal laws, regulations, building and fire codes, executive orders, and DOE Orders related to fire protection and highly protected risk concepts.
- Working knowledge of the intent as well as the independent and interdependent relationship between applicable building codes, fire codes, and national consensus codes and standards.
- Experience using and interpreting the IBC and its referenced codes and standards (e.g., NFPA) applicable to a diverse set of operations that include hazardous, industrial, business, assembly, and storage occupancies.
- Working knowledge of the NFPA requirements associated with inspection, testing and maintenance of fire protection systems.
- Demonstrated experience working with architects, engineers, developers, contractors and building owners in the interpretation and compliance with adopted building and fire codes, regulations and standards.
- Comprehensive knowledge of and experience with planning and executing projects.
- Analytical, reasoning, and communication skills necessary to identify and resolve fire risk problems with the mission in mind and assist in making recommendations in oral and written form.
- Knowledge of chemistry and understanding of how to use material safety data sheets (MSDS) to perform fire characterization analyses.
- In depth knowledge of fire and combustion sciences.
- Understanding of fire dynamics modeling and hydraulic calculation software.
- Ability to perform engineering calculations.
- Experience performing fire hazards analysis, to include developing and modeling of fire scenarios for nuclear, explosive and other safety-basis facility operations.
- Experience performing technical fire origin and cause determination.
- Experience in performing emergency services baseline needs assessments.
- Demonstrated ability to deal tactfully and effectively to resolve conflicts in an ethical, professional, and constructive manner to effect positive change.
- Track record of leadership and involvement in extracurricular activities, including professional associations.
- Self-directed, innovative, organized, and able to work in a diverse team environment.
- Professional Engineering (PE) license in fire protection engineering or ability to obtain.
- Participation in external industry consensus codes and standards technical committees to promulgate advancements in fire protection designs.

About Our Team

The Building & Fire Safety Department at Sandia National Laboratories (SNL) is responsible for interpreting and enforcing Building Codes and managing the Corporate Fire Protection Program; serves as Sandia's delegated Building Official for all construction matters and Sandia's delegated Fire Code Official for all fire protection matters; and serves as Sandia's Facility Policy owner. In these broad roles, the department develops corporate policy and implementing plans, processes and procedures to efficiently and effectively meet regulatory and contractual requirements. SNL's physical infrastructure includes approximately 190,000 acres of land and accommodates approximately 1000 government-owned buildings totaling 7.5 million gross square feet. The department's oversight responsibility for fire protection includes SNL site operations in California, Nevada, and Hawaii. The Department of Building and Fire Safety is committed to protecting workers, the public, the environment, and property from fire and its related hazards.

About Sandia

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation, with teams of specialists focused on cutting-edge work in a broad array of areas. Some of the main reasons we love our jobs:

- Challenging work with **amazing** impact that contributes to security, peace, and freedom worldwide
- Extraordinary co-workers
- Some of the best tools, equipment, and research facilities in the world
- Career advancement and enrichment opportunities
- Flexible schedules, generous vacations, **strong** medical and other benefits, competitive 401k, learning opportunities, relocation assistance and amenities aimed at creating a solid work/life balance*

World-changing technologies. Life-changing careers. Learn more about Sandia at: <http://www.sandia.gov>

*These benefits vary by job classification.

Security Clearance

Position requires a Department of Energy (DOE) granted Q-level security clearance.

Sandia is required by DOE directive to conduct a pre-employment background review that includes personal reference checks, law enforcement record and credit checks, and employment and education verifications. Applicants for employment must be able to obtain and maintain a DOE Q-level security clearance, which requires U.S. citizenship.

Applicants offered employment with Sandia are subject to a federal background investigation to meet the requirements for access to classified information or matter if the duties of the position require a DOE security clearance. Substance abuse or illegal drug use, falsification of information, criminal activity, serious misconduct or other indicators of untrustworthiness can cause a clearance to be denied or terminated by the DOE, rendering the inability to perform the duties assigned and resulting in termination of employment.

EEO

Equal opportunity employer/Disability/Vet/GLBT