Fire Protection Engineer

The Safety Services Division at the Oak Ridge National Laboratory (ORNL) seeks to hire up to two early to mid-career Fire Protection Engineers (FPEs).

**Purpose/Function of Job**
This position is responsible for assisting in implementing all technical aspects of the Fire Protection Engineering Program at ORNL. ORNL FPEs are assigned to support research, operations, and facility management activities across the ORNL Campus and at associated off-site facilities. This includes UT-Battelle missions in Hazard Category 1, 2, and 3 nuclear facilities, accelerator facilities, supercomputing facilities and a wide range of balance of Laboratory facilities.

This position supports implementation of ORNL’s comprehensive fire prevention / protection program that is designed to substantially reduce the threat of fire and related perils to life, missions, property, and the environment; and which adheres to Department of Energy (DOE) requirements.

**Major Duties/Responsibilities**
The successful candidate must possess a working knowledge and understanding of the physics of fire, hydraulics, chemistry, thermodynamics, computer, and analytical skills. Candidate must have excellent verbal communication skills, proficient technical writing skills, and ability to develop and foster positive customer relations. Applying the principles of the “Highly Protected Risk” concept from DOE Order 420.1C for the protection of property is a key responsibility.

In addition to interpreting and applying prescriptive code requirements, the ability to develop, propose, and if approved implement defendable risk-based decisions related to fire safety issues is a skill that is important for this position.

Successful candidates will team with researchers, facility and operations managers and staff, Utilities Division, and the ORNL Fire Department to facilitate fire safe operations and research activities.

This includes:
- **Facility Management Support:**
  - Fire Risk Assessments: Performing and/or reviewing scheduled Fire Protection Engineering facility Assessments (FPEAs) and / or Fire Hazards Analysis (FHAs) as assigned and per DOE requirements. Includes evaluation of fire prevention/protection features [sprinkler systems, fire detection and alarm systems, hazardous materials use, storage, and associated safeguards, Fire and Life Safety Code evaluations, etc.] within the various facilities across the Laboratory.
  - Design/Modification/Work Control Guidance: Participating in the development of project specific fire protection design criteria and associated specifications.
  - Design Review: Conducting fire protection reviews of drawings and specifications for planned new construction and/or building/process modifications. Includes review of design change packages to ensure that fire protection interactions with supporting systems are appropriately considered.
• Research Support: The successful candidate must possess sufficient customer service skills and technical ability to provide technical fire protection engineering support in a team environment. This includes review and input to work planning efforts, review of work packages, field walk downs and hazard assessment activities, and providing FPE consultations.

• Implementation of Programmatic Requirements: Interpreting and assuring Laboratory (Lab-wide) and facility (building specific) compliance with DOE, UT-Battelle, LLC, state, federal, National Fire Protection Association, and Building Code requirements (as applicable per the UT-Battelle contract with DOE and UT-Battelle internal policies and procedures).

• Systems Engineering support: In addition to supporting balance of Lab facilities and program activities (i.e. fire barrier inspections, facility assessments, etc.); this position may be assigned tasks to assist the Qualified (FPE) Systems Engineers at ORNL’s nuclear and accelerator facilities.

• Balance of Laboratory Fire Protection System Support: Supporting installation, operability, modification, and commissioning efforts for fire and life safety related systems/features for new construction and building/process modifications. Support inspection, testing, and maintenance tasks. Support planned and unplanned system impairments including prescribing appropriate compensator measures during alternate system configurations.

• Chemical Inventories / Hazardous Materials: Interpreting requirements and implementing associated safeguards to control risk associated with the use, handling, and storage of hazardous materials (e.g., compressed flammable gas, pyrophoric materials, combustible and flammable liquids). Working knowledge of the building code, fire code, and NFPA 45 approach to hazardous materials management is considered a plus for this position.

**Minimum Qualifications Required**

A Bachelor’s Degree or a Master’s Degree in Fire Protection Engineering or Fire Protection Engineering Technology with a minimum of two years of fire protection engineering experience is required. Candidates with a Bachelor’s Degree in a comparable engineering program (e.g. B.S. in Mechanical Engineering) and a minimum of five years of documented fire protection engineering experience may also be considered qualified for this position.

Successful candidates must possess a working knowledge and understanding of the physics of fire, hydraulics, chemistry, thermodynamics, computer, and analytical skills.

The ability to obtain and maintain a DOE security (Q) clearance is required.

This position is a Workplace Substance Abuse program (WSAP) testing designated position which requires passing a pre-placement drug test and participation in an ongoing random drug testing program in which employees are subject to being randomly selected for testing. The occupant of this position will also be subject to an ongoing requirement to report to ORNL any drug-related arrest or conviction or receipt of a positive drug test result.

**Preferred Qualifications**
Specific experience with applying highly protected risk concepts for fire protection is desirable. Membership in the Society of Fire Protection Engineers and/or the National Fire Protection Association is considered a plus.

This position will remain open for a minimum of four weeks after which it will close when a qualified candidate is identified and/or hired.

ORNL is an equal opportunity employer. All qualified applicants, including individuals with disabilities and protected veterans, are encouraged to apply. UT-Battelle is an E-Verify Employer.

If interested, please apply at http://1.usa.gov/1ntYeql