

# Principal Fire Protection Engineer, Structures - 90292353 - Philadelphia

**Date:** Jul 1, 2021

**Location:** Philadelphia, PA, US, 19104

**Company:** Amtrak

**Your success is a train ride away.**

Amtrak connects businesses and communities across the country and we move America's workforce toward the future. We employ more than 20,000 diverse, energetic professionals in a variety of career fields throughout the United States. The safety of our passengers, our employees, the public and our operating environment is our priority and the success of our railroad is the result of our employees.

**Are you ready to join our team?**

## **SUMMARY OF DUTIES:**

Under the direction of the Senior Principal Engineer for Amtrak's nationwide Fire and Life Safety design protocol within the Facilities and Tunnels group, the Principal Engineer's position serves as a technical subject matter expert pertaining to fire protection, life safety and electrical systems across the county wide Amtrak Network. The position provides lateral service to numerous internal departments such as Stations, Planning, Mechanical and Transportation along with Engineering projects/programs. Support is provided through resolving issues related to fire protection and life safety utilizing both deterministic and performance-based methods, code consulting and egress analysis, fire protection system design and reviews, fire hazard analysis and computer-based modeling analysis. The Principal Engineer will also be the subject matter expert for electrical systems ranging from 120V to 480V Systems.

## **ESSENTIAL FUNCTIONS:**

- Expert knowledge of interpreting model building/fire codes and NFPA Standards.
- The ability to provide code/standard review and interpretation for internal and external stakeholders as well as advise Amtrak's various asset owners and Project Managers (who often function as or under the Authority Having Jurisdiction) on system design criteria.
- Understanding of fire protection design and evaluations encompassing fire sprinkler systems, fire alarm systems, standpipe systems and special suppression systems
- Previous project management experience with emphasis on developing and reviewing Project Scopes, Schedules, and Budgets with ability to maintain concise and up-to-date scope / schedule / budget status summaries for inclusion in the Facilities Database as part of internal and external stakeholder communications.
- Knowledge of Computer Fire and Egress Modeling along with hydraulic calculation software/models
- Experience with tunnel ventilation and system controls
- Ability to develop and evaluate cost effective solutions
- Understanding of and experience in design of low voltage (120v-480v) electrical systems including buildings, facilities, tunnels, pump rooms and emergency / back-up power (excluding signal power and traction power)
- Skilled in developing and reviewing construction cost estimates for both small-scale and large-scale jobs
- Proficient with the design review process and developing direct review comments, participating in page turn reviews and comment close-out
- Capability of working in a dynamic team environment successfully managing multiple projects with various deliverable deadlines
- Experience in leading/chairing meetings with local, state and federal agencies, utility companies and regulatory agencies

## **MINIMUM QUALIFICATIONS:**

- Bachelor's Degree required OR equivalent combination of training, education and relevant experience may be considered in lieu of a degree.
- 7 years relevant experience required..
- Proficient in power systems design for commercial and industrial facilities
- Licensed Professional Engineer
- Extensive infrastructure experience in maintenance, planning, design, construction, and project / program management for facilities, preferably in a railroad environment
- Experience in management and leadership of multi-discipline design leveraging outside architecture and engineering consulting firms
- Mastery of building codes, design specifications, and recommended practices for fire protection equipment, controls, and power sources
- Demonstrated experience working in a matrix organization

**PREFERRED QUALIFICATIONS:**

- Bachelor's Degree in Fire Protection Engineering or Electrical Engineering.
- 9+ years relevant experience preferred.
- Prior work experience as an Owner's Representative performing all phases of development including planning, scoping, budgeting, estimating, constructing, and project close-out in a fast-paced environment with projects ranging in size and complexity
- Prior design experience with building / tunnel electrical system and controls (excluding signal and traction power)
- Familiarity with large scale historically sensitive facilities
- Passenger rail or transit work experience
- Master's degree in Fire Protection Engineering
- Excellent verbal and written communication, organizational, collaborative and relationship building skills with demonstrated experience both within and outside an organization
- Must be able to initiate work from a bare problem statement and perform / manage all investigation, design and contract packaging to drive toward an efficient result with minimal impact to railroad operations
- Understanding of passenger railroad environment

**COMMUNICATIONS AND INTERPERSONAL SKILLS:**

Must have excellent oral and written communication skills.

**Requisition ID:**59262

**Posting Location(s):**Pennsylvania

**Job Family/Function:**Engineering

**Relocation Offered:**Yes

**Travel Requirements:**Up to 25%

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We want your work at Amtrak to be more than a job – we want it to be a fulfilling experience where you find challenging and rewarding opportunities, respect among colleagues, competitive pay, benefits that protect you and your family, and a high performance culture that recognizes and values your contributions and helps you reach your career goals.

We proudly support and encourage U.S. Veterans to apply for Amtrak job opportunities.

All positions require pre-employment background verification, medical review and pre-employment drug screen. Amtrak is committed to a safe and drug-free workplace and performs pre-employment substance abuse testing. All new hires are required to undergo a hair drug test which detects the presence of illegal drugs for months prior to testing. Marijuana, notwithstanding any statute, ordinance, regulation, or other law that legalizes or decriminalizes the use or possession of marijuana, whether for

medical, recreational, or other use. Candidates who engage in the usage of marijuana will not be qualified for hire. We appreciate your cooperation in keeping Amtrak safe and drug-free. In accordance with DOT regulations (49 CFR section 40.25), Amtrak is required to obtain prior drug and alcohol testing records for applicants/employees intending to perform safety-sensitive duties for covered Department of Transportation positions. If an applicant/employee refuses to provide written consent for Amtrak to obtain these records, he/she will not be permitted to perform safety-sensitive functions.

Note that any education requirement listed above may be deemed satisfied if you have an equivalent combination of education, training and experience.

Amtrak is an Affirmative Action/Equal Opportunity Employer and we welcome all to apply. We consider candidates regardless of race, color, religion, sex, sexual orientation, gender identity, national origin, disability (including blindness), or veteran status.