Fire Protection Engineer - System Design
Philadelphia, Pennsylvania

Company Description

At AECOM, we're delivering a better world.

We believe infrastructure creates opportunity for everyone. Whether it's improving your commute, keeping the lights on, providing access to clean water or transforming skylines, our work helps people and communities thrive.

Our clients trust us to bring together the best people, ideas, technical expertise and digital solutions to our work in transportation, buildings, water, the environment and new energy. We're one global team – 47,000 strong – driven by a common purpose to deliver a better world.

Here, you will have freedom to grow in a world of opportunity.

We will give you the flexibility you need to do your best work with hybrid work options. Whether you're working from an AECOM office, remote location or at a client site, you will be working in a dynamic environment where your integrity, entrepreneurial spirit and pioneering mindset are championed.

You will help us foster a culture of equity, diversity and inclusion – a safe and respectful workplace, where we invite everyone to bring their whole selves to work using their unique talents, backgrounds and expertise to create transformational outcomes for our clients.

We will encourage you to grow and develop your career with us through our technical and professional development programs and diverse career opportunities. We believe in leadership at all levels. No matter where you sit in the organization you can make a lasting impact on the projects you work on, the teams and committees you join and our business.

We offer competitive pay and benefits, well-being programs to support you and your family, and the development resources you need to advance your career.

When you join us, you will connect and collaborate with a global network of experts – planners, designers, engineers, scientists, consultants, program and construction managers – leading the change toward a more sustainable and equitable future. Join us and let's get started.

Job Description

- Design of fire detection, fire suppression and emergency signaling systems equipment and procedures in accordance with all applicable governing Codes and Standards and industry best practices.
- Development of performance-based design analyses utilizing fire protection engineering principles, code analyses, consultation with authorities having jurisdiction, computer-based fire modeling, egress calculations, and other available resources as necessary to suit the specific of each application.
- Creation of fire detection and emergency signaling system design and layout plans, schematics, equipment specifications, supporting design calculations, system narratives, and construction specifications.
- Creation of fire suppression system design criteria, specifications and layouts, preliminary hydraulic calculations, fire pump selection specifications, and fire detection system integration.
- Creation of special hazard fire protection designs, including but not limited to aspirating and beam-type smoke detectors.

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- Creation of fire suppression system design criteria, specifications and layouts, preliminary hydraulic calculations, fire pump selection specifications, and fire detection system integration.
- Creation of special hazard fire protection designs, including but not limited to aspirating and beam-type smoke detection, video imaging detection, flame detection, suppression system monitoring and control and smoke control system integration.
- Creation of integration designs between life safety and building services systems as required to comply with all applicable codes, standards and system operating objectives, including but not limited to information technology, telephone, security, electrical, HVAC, and plumbing.
- Creation of detailed installation and commissioning work plans identifying acceptable installation methodologies, sequences, post-installation testing and commissioning and other associated critical installation parameters based on the system design documentation and applicable codes and standards.
- Provision of engineering review of shop drawings, construction oversight and inspection, field surveys and systems acceptance testing for all life safety systems, including but not limited to fire detection, emergency signaling and fire suppression systems.
- Attendance and participation in project meetings for the purposes of providing progress oversight, coordinating prioritization of work as it relates to other areas of construction, and providing recommendations for resolution of issues encountered by construction trades during implementation of life safety system designs.
- Evaluation of existing building and life safety system conditions through code compliance, life safety and fire hazards analysis surveys.
- Development of hazardous materials assessments for storage, process manufacturing and laboratory facilities.
- Creation of technical reports detailing specific fire prevention and protection issues, including identified compliance issues, applicable revisions to governing Codes or Standards, remedial work required to address deficiencies, and identified gaps in facility procedures and practices.
- Development and delivery of training materials related to fire protection and life safety for both internal and external stakeholders.
- Completion of periodic skills refreshment and enhancement through professional literature, conference attendance and participation in professional training.
- Provision of technical and interpretative guidance on the requirements of related Codes and Standards at the federal, provincial/state and municipal level for internal and external stakeholders.
- Provision of system-specific technical support for fire protection systems to site construction, operations and maintenance personnel.
- Provision of periodic after-hours or on-call engineering services in the event of an emergency.

Qualifications

MINIMUM REQUIREMENTS:

- BS Degree in Fire Protection Engineering Technology or demonstrated equivalency of experience and/or education

PREFERRED QUALIFICATIONS:

- Ability to create/design various fire protection systems
- Ability to develop and deliver training materials for fire protection / life safety
- Knowledge of related Codes and Standards at the federal, provincial/state and municipal level for internal and external stakeholders.
- Experience in fire protection systems equipment manufacturing
- Fire protection equipment installation, commissioning, and maintenance

Additional Information

All your information will be kept confidential according to EEO guidelines.

Sponsorship is not available for this position.

Relocation is not available for this position.

With infrastructure investment accelerating worldwide, our services are in great demand, and there’s never been a better time to be at AECOM! Join us, and you’ll get all the benefits of being a part of a global, publicly traded firm – access to industry-leading technology and thinking and transformational work with big impact and work flexibility.

AECOM provides a wide array of compensation and benefits programs to meet the diverse needs of our employees and their families. We also provide a robust global well-being program. We’re the world’s trusted global infrastructure firm, and we’re in this together – your growth and success are ours too.

As an Equal Opportunity Employer, we believe in each person’s potential, and we’ll help you reach yours.

Business Group: DCS
Strategic Business Unit: East
Career Area: Engineering
Work Location Model: Hybrid

Join us and let’s get started.

ReqID: J10070201
Business Line: Transportation