



COMPANY OVERVIEW:

Burns & McDonnell is making the world a more amazing place with more than 5,000 engineers, architects, construction professionals, scientists and consultants on staff and growing. We strive to create amazing success for our clients and amazing careers for our employee-owners. We take on some of the world's toughest challenges with the industry's best thinking.

We have offices and projects spanning the US and the globe. We are proud to rank among FORTUNE magazine's 100 Best Companies to Work For. Our culture of 100% employee ownership plays a major role in supporting that outcome. Each employee shares in the ownership of the firm, bringing the commitment of an owner to our projects. Clients appreciate that and have rewarded us with a 90% repeat business rate and decades-long partnerships. Pretty cool for a 100+ year old firm that grows organically.

At Burns & McDonnell, you'll have the opportunity to make a difference every day while fulfilling your personal and professional ambitions. Our entrepreneurial culture lets you guide your destiny and shape the path your career travels. And with more than 350 service specialties, your career and development options are abundant.

JOB DESCRIPTION:

As a member of our fire protection engineering team, successful candidates will assist in designing many fire and life safety systems including: wet, dry, preaction and deluge sprinkler systems, foam, water spray, clean agent, wet and dry chemical and clean agent fire suppression systems, fire pumps, water tanks, standpipes, smoke management systems, and building fire alarm and mass notification systems. You will also be involved in building code and life safety code reviews, review of hazardous materials, design and analysis of building egress and passive fire protection systems, and reviews of existing buildings for compliance with applicable building and fire codes. You will also be involved in the construction and commissioning process.

Successful candidates will:

- Assist in the design and specification of fire suppression systems including wet-pipe, dry-pipe, preaction, deluge, fire pumps, and storage tanks on a wide variety of project types. Knowledge of special systems such as foam, spray, mist, clean agent, wet/dry chemical, and carbon dioxide is preferred.
- Assist in the design and specification of fire alarm systems, mass notification systems, and releasing systems. Knowledge of manual, electric, and pneumatic releasing, as well as cross-zoning and flame detection is preferred.
- Perform hydraulic calculations and work with outside resources to incorporate special hazard systems.
- Assist in preparation of comprehensive fire protection packages including fire suppression, fire alarm, smoke evacuation, and life safety.
- Apply sound fire protection engineering principles to assist in troubleshooting and solving client related problems.
- Assist field personnel in resolving design related installation issues.



- Assist in the construction administration process including review of contractor shop drawings, field inspection, and testing and commissioning.

CAREER IN FIRE PROTECTION ENGINEERING:

Burns & McDonnell offers exciting careers in Fire Protection Engineering. Our fire protection engineers can start out with undergrads in mechanical, chemical, electrical, civil, or structural engineering and make the shift to fire protection right out of the gate or later in their careers. You may be thinking, fire protection engineer, don't they just design sprinkler systems? Actually, it is only a small part of what we do, we're part mechanical engineer when we design sprinkler systems using concepts such as hydraulics, pressures, flows, pumps, static head, and fluid delivery times. We're closer to electrical engineers when designing fire alarm systems, as we deal with amps, circuiting, conduit routing, voltage drops, releasing/control systems, voice intelligibility, and sound pressure. We hit on aspects of structural engineering when modeling the effects of a fire event on a building such as heat transfer, structural integrity at elevated temperatures, and the yield/ultimate strength of steel. We also touch on other aspects of engineering when designing systems including smoke evacuation to protect occupants, venting to redirect a deflagration, or fire resistive construction to contain a fire event. Take all these engineering concepts and wrap them around some fascinating project types such as jet engine testing facilities, double decker fueling piers, high-rise office buildings, oil refineries, multi-bay aircraft hangars for state-of-the-art aircraft and you end up with an exciting and challenging career, where you will be providing innovative solutions to our client's challenges to make them successful.

QUALIFICATIONS

- Pursuit of Bachelor's degree in fire protection engineering technology or similar major from accredited program.
- Strong analytical and problem solving skills.
- Prior internship, consulting experience, NICET certification, and certified Fire Protection Specialist accreditation is preferred.
- Excellent written and verbal communication skills with strong analytical and problem solving skills.
- Minimum 3.0 or higher GPA strongly preferred.

EEO/Minorities/Females/Disabled/Veterans
Apply online at www.burnsmcd.com/careers to be considered.