



Sr. System Safety & Security Engineer

Classification

Exempt from Overtime

Salary Level

Mid-Level/Professional

JOB DESCRIPTION

Summary/Objective

The Sr. System Safety & Security Engineer (SSSE) reports directly to the System Safety & Security Manager (SSSM). The SSSE is responsible for supporting the implementation and completion of projects within the System Safety & Security (3S) Practice, in strict accordance with client contract requirements, while remaining aligned with the overall strategy, commitments and goals of the company. Core responsibilities will include database maintenance, field inspections, reviewing design drawings, and conducting project-specific system safety and security activities.

Essential Functions

- Reviews engineering documentation and drawings and issues comments on civil, architectural, structural, mechanical, electrical, track and communications regarding compliance with safety standards, fire codes as well as other local building codes
- Conducts safety engineering reviews of construction/engineering documents, drawings, specifications and operating procedures to ensure that fire and safety codes, standards and principles are integrated, and all safety hazards are identified, eliminated, minimized and/or controlled
- Participates in the Safety & Security Certification process to insure compliance with the Safety & Security Certification Plan
- Monitors and reviews notices distributed via the project's document control system
- Conducts analyses on various transportation systems (examples: Railcars, Train Control, Communications, etc.) to identify potential safety hazards and ways to mitigate them
- Develops safety and security design criteria and requirements for technical specifications
- Reviews accidents worldwide to ensure mitigations from accidents are implemented if there's applicability to the project on which one is working
- Conducts System Safety Audits of passenger facilities including transit centers, rail station platforms and other areas identified in safety analyses
- Tracks and monitors identified hazards to ensure they are being eliminated
- Participates on and/or lead safety committees and safety audit teams and develops comprehensive safety reports
- Records and assigns hazard analysis findings to individual design disciplines and verifies findings are defined in detail and understood
- Evaluates and makes sure approaches to technical issues for each hazard addresses the finding and are thorough and complete
- Prepares monthly status reports for System Safety, identifying all outstanding action items and the planned approach to accomplishment
- Develops and/or reviews safety training programs for employees and recommends revisions as needed



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- Implements the requirements of 49 CFR 659 and supports all related activities associated with the State Oversight Agency Program
- Reviews and comments on project test plans that involve or include System Safety requirements and their verification/validation
- Develops, maintains, and monitors a Safety Open Item List that entails all the Safety Open Items on the project to completion
- Participates in all project audits by prime consultant and project quality team
- Maintains up-to-date System Safety and Security project documents (Management, Certification, and Program Plans)

Required Skills and Qualifications

- Bachelor's degree in a safety or engineering related field, or equivalent number of years of experience
- Demonstrated equivalent experience, education and/or technical credentials may be considered in lieu of degree
- A minimum of 10-15+ years of progressively responsible related experience in safety engineering, civil engineering, construction management, and/or systems design;
- Working knowledge of the Code of Federal Regulations (CFR) Title 49 – Transportation, Transit Safety Institute (TSI) Courses, Federal regulations, requirements, and certifications (FTA, FRA, DOT, OSHA, etc.), and other related knowledge, skills, or qualifications
- Experience performing various safety analysis techniques including: preliminary hazards analysis, fault tree analysis – failure modes, effects, and criticality analysis desired but not required
- Experience in performing hazard and root cause analyses
- Experience researching and interpreting the American with Disabilities Act (ADA), National Fire Protection Association (NFPA) codes, Occupational Safety Health Administration (OSHA) standards, American National Standards Institute (ANSI), and other safety related national and local building, fire and life safety codes and standards
- Familiarity with developing work rules and Standard Operating Procedures governing rail vehicles
- Must have a working knowledge or the ability to learn the physical and operating characteristics of passenger vehicles and facilities
- Must possess a working knowledge of accepted techniques for data evaluation, mathematical analyses and statistical development
- Required to possess the knowledge and skills necessary to operate personal computer systems to develop and maintain business applications using standard software such as Windows, MS Word, Access, Excel and PowerPoint
- Required to possess demonstrable skills necessary to effectively present statistical information in various computer-generated reports including graphs and charts
- Must possess a temperament suitable to effectively relate to all levels of personnel, clients, external business contacts and the general public
- Must possess the skills necessary to express oneself orally and in written format in a clear, concise and comprehensible manner
- Valid motor vehicle operator's license
- Must pass employment verification, verification of eligibility to work in the U.S., and criminal history background check



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Preferred Skills and Qualifications

- Graduate degree in safety or engineering related field
- Board of Certified Safety Professionals (BCSP) Certification(s) – Associate Safety Professional (ASP) and/or Certified Safety Professional (CSP)
- World Safety Organization (WSO) Certification(s) – Certified Safety & Security Specialist (WSO-CSS) or Certified Safety & Security Director (WSO-CSSD)
- Transportation Safety Institute (TSI) Transit Safety and Security Program (TSSP) Certificate
- Project Management Institute (PMI) Certification(s) – Project Management Professional (PMP)
- American Public Transportation Association (APTA) – Active Membership and Committees
- Working knowledge or the ability to learn 49 CFR Part 238, Passenger Equipment Safety Standards, Railroad Operating Rules and Safety Rules
- Knowledge of the National Incident Management System (NIMS)

Supervisory Responsibility

This position does not have supervisory responsibility.

Position Type and Expected Hours of Work

This is a full-time position requiring 40+ hours per week. Typical hours of work are Monday through Friday, though some weekend activity may be required. This position may maintain a flexible work schedule but must satisfy project requirements first.

Travel

Out-of-the-area and overnight travel is to be expected for non-local residents. This position will require on-site presence at the project site every week, Monday through Friday. For non-local residents, TSSS provides corporate housing at no cost while on-site. TSSS also covers the cost of employee travel bi-monthly (twice a month) through utilization of a corporate AMEX. Employees may travel home more frequently at their own expense.

SIGNATURES

This job description has been approved by all levels of management:

Direct Supervisor _____

Date _____

Human Resources _____

Date _____

Employee signature below constitutes employee's understanding of the requirements, essential functions, and duties of the position.

Employee _____

Date _____