ELEVATOR INSPECTOR

KIND OF WORK

Professional-level elevator inspection and safety code enforcement work.

NATURE AND PURPOSE

Under limited supervision, an employee in this class, conducts inspections of the condition, design, installation and operation of all types of elevators and other lift equipment ranging from new elevator installations (the most basic) and existing unmodified elevators to alterations of existing elevators (the most complex), and advises design professionals and contractors on code compliance issues and initiates corrective measures as needed; performs related work as required.

This classification differs from other safety regulation classes because of its focus on very specific and highly technical elevator inspections. Other inspection classes are focused on other kinds of machinery, equipment, and/or material such as Boiler Inspector 1 and 2, Steamfitting Standards Representative and Plumbing Inspector. Also, the in-depth knowledge of elevator related codes and standards and the technical design and operation of elevators distinguishes this class from those above and from other classes requiring more general knowledge of safety practices or code interpretation such as Safety Investigator and Safety Investigator Senior, Safety and Health Officer 1 and 2, or even Electrical Examiner.

EXAMPLES OF WORK (A position may not include all the work examples given, nor does the list include all that may be assigned.)

Inspect new, modified, and existing elevators to ensure proper installation and maintenance and detect imminent danger situations by applying appropriate codes and standards and an understanding of mechanical engineering and electrical principles, computing mathematical calculations, observing actual operation of the equipment, and testing elevator controls and safety devices.

Develop methods, procedures and schedules for inspecting elevators to ensure a uniform approach to safety inspections by reviewing proposed plans and material specifications, understanding the capacities of the elevator equipment in use or proposed, and determining an acceptable means for inspecting the installation and operation of the equipment.

Examine project blueprints, layouts, and sketches and construction methods and material of proposed elevator emplacements or replacements to ensure code compliance of proposed plans and determine remedial action as needed by interpreting and applying codes to specifications and plans, detecting deficiencies and recommending appropriate alternatives or corrective actions.

Advise architects, engineers, elevator contractors, and general contractors on code interpretation and application to resolve technical issues consistent with appropriate codes and site requirements by determining and discussing alternatives and selecting and recommending the course of action consistent with codes and standards.
Recommends issuance of citations at elevator emplacements to suspend or abort operations not meeting code requirements or involving imminent danger by recognizing deficiencies or hazards, taking appropriate corrective action, and documenting the apparent violations.

Testify at contestation proceedings to present information about citations issued by explaining the intent of appropriate codes, reviewing witness statements, notes, and photographs taken, describing the conditions at the time of the inspection, and explaining the reasoning behind the citation.

Write and submit periodic reports regarding all inspections and related activity to record the findings and document noncompliance or imminent danger situations and the corrective actions taken.

KNOWLEDGE, SKILLS AND ABILITIES REQUIRED

Knowledge of:

* Elevator safety related codes and standards sufficient to recognize deficiencies and offer solutions. (These regulations are American Society of Mechanical Engineers/American National Standards Institute - A 17.1, A17.2, A17.3, A117.1, B20.1 and Minnesota modifications of ASME/ANSI; Uniform Building Codes and Minnesota modifications; State Handicap Requirements for Accessibility; National Electric Council Standards; National Fire Protection Association Codes.)

* Methods for installing, repairing and maintaining elevators and related equipment sufficient to recognize unacceptable practices during field inspections.

* Types of elevators and their design and operational capacities and specifications to evaluate proposed modifications and installations of elevators.

State, federal and local laws or ordinances germane to elevator operations and safety inspections to provide comprehensive analysis and technical assistance to clients.

Agency forms and procedures for reporting inspection related findings and recommendations sufficient to document activities and meet agency record keeping requirements.

Ability to:

* Communicate verbally and in writing to explain codes and standards, discuss compliance options, and record inspection related information.

* Interact with tact and understanding with clients sufficient to obtain needed information and resolve compliance issues.

* Read and interpret blueprints and specifications to evaluate their conformance with codes and standards.
* Compute mathematical calculations sufficient to determine electrical requirements, stress factors, and load capacities for elevators.

* Recognize violations, deficiencies, and malfunctions and their causes in elevator operations to provide the appropriate assessment and recommendation of a code or safety violation.

* Document code and safety violation sufficient to inform all parties of items requiring correction.

Prepare verbal and written descriptions of adverse findings sufficient to develop evidentiary support for legal presentations.

SPECIAL WORK CONDITIONS

Applicants must be physically able to perform effectively the duties of Elevator Inspector as described in this specification. Physical demands include climbing and working at significant heights and in enclosed places such as elevator shafts.