

**COMPETENCY MODEL FOR  
SAFETY ENGINEER ELEVATORS (4263)**

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of **SAFETY ENGINEER ELEVATORS**:

- 1. \* Reading Comprehension
- 4. \* Analytical Ability
- 8. \* Safety Focus
- 20. \* Job Knowledge
- 26. \* Electrical Understanding
- 34. \* Customer Service
- 43. \* Follow Oral Directions
- 44. \* Follow Written Directions

On the following pages are descriptions of each competency, including a definition, the level of the competency required for the class (*italicized and underlined*), examples of behavioral indicators, and satisfactory and superior performance levels.

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\*Indicates Competency is required prior to entry

**1. READING COMPREHENSION** – Comprehends and correctly applies information presented in written form. Makes correct inferences; draws accurate conclusions.

Level of Competency Required by Job:

- Level 1: Concrete, specific job-related information (work orders; instructions; material/equipment labels)
- Level 2: *General information related to field of work and assignments; (articles in trade publications; technical/instructional manuals; memos; letters; e-mails; reports)***
- Level 3: Abstract/complex information (highly technical articles/ reports in specialized area; legal or other regulatory material)

Examples of Behavioral Indicators:

- Follows written instructions correctly.
- Learns information presented in writing.
- Identifies relevant written information.
- Interprets written legal regulatory material accurately.

Performance Levels:

Satisfactory

Reads instructions correctly. Learns from manual and other printed material.

Superior

Learns from manual and may answer others' questions. Explains information presented in written form to others.

**4. ANALYTICAL ABILITY** – Identifies, obtains, and evaluates relevant information to establish relationships or patterns, cite causes, and reach logical conclusions.

Level of Competency Required by Job:

**Level 1:**     ***Recognize similarities/differences in current situation to those previously encountered and is guided accordingly. Apply existing policies correctly. Ask pertinent questions or otherwise seek additional information to formulate appropriate response.***

Level 2:       Consider multiple, varied factors when evaluating a situation or issue. Seek additional information to provide further insight. Reach conclusions that logically follow from the information obtained.

Level 3:       Consider a multitude of diverse factors, their interrelationships, the perspectives of others, alternative courses of action and their likely ramifications when evaluating information to reach a conclusion.

Examples of Behavioral Indicators:

- Obtains the necessary amount of relevant information.
- Recognizes the impact of each type of information on conclusions.
- Evaluates the quality/source of information when considering it.
- States the shortcomings of the information and, therefore, the analysis.

Performance Levels:

Satisfactory

Recognizes available relevant information, seeks additional information to consider, and reaches a conclusion. Provides sound, convincing justification for conclusions, citing relevant data and facts.

Superior

Uses a great deal of existing and obtained information and data to develop and evaluate alternatives and arrive at a final conclusion. Provides compelling arguments in support of conclusions.

**8. SAFETY FOCUS** – Performs work in a way that minimizes risk of injury to self or others.

Level of Competency Required by Job:

- Level 1: Maintain awareness of unsafe conditions and actions to avoid injury.
- Level 2: Follow safety rules/procedures; avoid known hazards in the work environment.
- Level 3: *Carefully follow safety rules and procedures and consistently use all necessary safety equipment.***

Examples of Behavioral Indicators:

- Wears seat belt.
- Ensures safe physical work environment by taking actions such as eliminating unstable stacks of materials, closing drawers so filing cabinets will not tip over, and keeping pathways clear of tripping hazards.
- Reviews safety procedures before beginning each job with known hazards.
- Follows safety procedures while performing work even when it takes more time.
- Uses safety equipment such as goggles, gloves, and earplugs as required or warranted.
- Frequently checks safety equipment for proper condition and operation.

Performance Levels:

Satisfactory

Maintains awareness of personal safety to avoid injury or property damage during all work activities.

Superior

“Safety first.” Places avoidance of injury or property damage above all other job requirements. Mentions the need to follow safe work practices to co-workers. Actively seeks ways to avoid injury.

**20. JOB KNOWLEDGE** – Knows information required to perform a specific job. Includes both widely available courses of study (for example, chemistry, human resources management, graphic arts) and City-specific information (parking regulation and ticketing practices; purchasing procedures; provisions of the City Charter).

Level of Competency Required by Job:

- Level 1: Knowledge acquired after hire in a brief orientation, short training program, or through on-the-job training.
- Level 2: *Knowledge acquired through an apprenticeship or extensive training program, or long duration of job performance.***
- Level 3: Knowledge acquired through a prolonged external course of study and/or extensive training and experience within the City.

Examples of Behavioral Indicators:

- Performs work correctly/avoids technical (job content related) errors.
- Answers technical questions about work accurately.
- Asks few technical questions about the performance of routine work activities.
- Offers advice (“coaching”) to new employees regarding their work.
- Develops training programs for other employees.

Performance Levels:

Satisfactory

Sufficient job knowledge to perform work correctly independently. Answers technical questions about work correctly.

Superior

Expertise in technical job information sufficient to serve as a resource to others. May develop training manuals/programs and/or give internal and/or external presentations related to work.

## Knowledge List 2015

1. \* Knowledge of the following parts of elevators, escalators, and similar mechanical and/or hydraulic lifting devices installations sufficient to inspect them for safe operation and for conformance with applicable City and state laws, ordinances, codes, and regulations:
  - a) elevator car enclosures;
  - b) elevator car exteriors;
  - c) beams;
  - d) cables and associated connectors and guards;
  - e) sheaves and related devices such as guards and restraints;
  - f) chains and guards;
  - g) gears and guards;
  - h) drive sprockets and guards;
  - i) guide rails and their supports;
  - j) belts and guards;
  - k) counterweights, guards, and how they are secured in place;
  - l) hydraulic, spring, or solid buffers;
  - m) hydraulic cylinders, pistons, and connections;
  - n) electrical fittings such as switches, switch boxes, wiring, fuses, and/or circuit breakers;
  - o) solid state relays and other control circuits;
  - p) fly ball and centrifugal governors;
  - q) hoistway construction including enclosure, doors, and vents;
  - r) machine room construction including electrical clearance, headroom, and absence of extraneous equipment;
  - s) pit construction including access, lighting, and clearance;
  - t) mechanical and electrical safety devices such as door interlocks, stop switches, skirt switches, and car "safeties"
  - u) bolts, handrails, and skirts.
2. Knowledge of types of welds and of defects such as cracks, or irregularities to ensure safe working conditions.
3. Knowledge of the following tests of elevators, escalators, and similar mechanical and/or hydraulic lifting devices sufficient to ensure that they are performed correctly and that the results are reliable:
  - a) running;
  - b) buffer and "safety" tests of elevators;
  - c) brakes on elevators and hoists;
  - d) brakes on escalators;
  - e) governors;
  - f) control circuits;
  - g) elevator speeds;
  - h) safety devices.

4. Knowledge of the proper use and care for testing equipment such as voltmeters, tachometers, or calipers sufficient to test elevators, escalators, and similar mechanical and/or hydraulic lifting devices and to determine operating condition.
5. Knowledge of common causes of accidents and malfunctions (such as doors not closing properly or automatic controls being out of adjustment) of elevators, escalators, and similar mechanical and/or hydraulic lifting devices and how to properly fix each problem.
6. Knowledge of arithmetic and algebra sufficient to perform such calculations as determination of distances, areas, and velocities and to convert from one system of units to another.
7. Knowledge of electrical theory such as current/voltage relationships and function of transformers sufficient to handle and to connect electrical equipment such as testing meters, controls circuits, switches, wiring, and protective devices correctly.
8. Knowledge of frequently used provisions of City and State laws, ordinances, codes, and regulations such as handicap access requirements or permissible types of electric wiring relating to installation and operation of elevators, escalators, and similar mechanical and/or hydraulic lifting devices.
9. Knowledge of procedures for locating specific City and State laws, ordinances, codes, and regulations such as provisions of the Building Code or OSHA regulations relating to installation and operation of elevators, escalators, and similar mechanical and/or hydraulic lifting devices.
10. Knowledge of legal requirements for documentation of actions relating to permissible operation of elevators, escalators, and similar mechanical and/or hydraulic lifting devices.
11. Knowledge of the proper practice required to communicate technical information and other information sufficient to write material such as memos, letters, and reports, to complete standard forms, and to obtain or to provide information.

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**26. ELECTRICAL UNDERSTANDING** – Comprehends the concept and the operation of flow of electrical current.

Level of Competency Required by Job:

**Level 1:**        ***Know the properties of electricity relevant to the work environment and work to be performed in order to correctly perform work and recognize hazards that will be created by the failure to do so.***

Level 2:        Sufficient understanding of electricity to recognize problems and determine repair needed to prevent disaster/restore operation.

Level 3:        In-depth understanding of electrical principles and phenomena sufficient to design and/or oversee the installation of complex electrical systems.

Examples of Behavioral Indicators:

- Ensures safe physical work environment by taking actions such as eliminating exposed electrical wire, faulty connections, empty sockets, and overloaded circuits.
- Recognizes the danger of fire from faulty electrical installations.
- Uses tools, equipment, and instruments properly to accomplish electrical work correctly and safely.
- Systems designed and/or for which installation is overseen perform as intended upon completion.

Performance Levels:

Satisfactory

Understands the operation of electricity sufficient to readily learn and perform electrical work.

Superior

Displays exceptional insight into the operation of electrical systems, and makes correct inferences regarding them. Promptly and accurately troubleshoots problem.



**34. CUSTOMER SERVICE** – Interacts with recipients of services (internal or external customers) in a way that provides accurate, timely, and effective information and service.

Level of Competency Required by Job:

- Level 1:**      ***Interact with customers in person, over the telephone, or through e-mail (and/or other electronic media) in order to provide information or assistance. Listen to customer concerns; explain/reconcile information and provide alternatives if possible; facilitate resolution by making referral and/or following-up as necessary.***
- Level 2:      Promotes positive customer service. Serves as a model of providing exemplary customer service.
- Level 3:      Develop customer-oriented procedures; identifies changes in procedures to enhance customer service and ensures they are implemented.

Examples of Behavioral Indicators:

- Carefully listens to (or reads) customer statement of the issue.
- Provides direct, informative, accurate responses to customer.
- Suggests options if available.
- Maintains a positive attitude in the face of customer complaint or frustration.
- Remains focused on the issue presented by the customer and directs the customer back to the issue if necessary.
- Asks the customer if their concerns have been fully addressed.
- Ensures organizational policies and practices are customer-focused.
- Ensures all employees recognize their responsibility for customer service and are properly trained for it.

Performance Levels:

Satisfactory

Displays knowledge as well as courtesy and patience when interacting with customers. Ensures customers' issue is correctly identified and remains focused on it until it is resolved.

Superior

Seeks further information or advice to resolve difficult issues. Solicits feedback on the effectiveness of service. Makes suggestions for improving service and facilitates changes needed to implement.

**43. FOLLOW ORAL DIRECTIONS** – Performs work accurately as directed orally.

Level of Competency Required by Job:

- Level 1:**      ***Receive specific, complete oral directions daily or by individual task assignment throughout the day.***
- Level 2:      Receive general instructions orally that span across days or for entire assignments.
- Level 3:      Receive general instructions/assignments orally regarding long-term objectives/responsibilities.

Examples of Behavioral Indicators:

- Does work assigned orally properly and on time.
- Asks pertinent questions for clarification of assignments.
- Performs work correctly when instructions were given orally.
- Explains assignments to others who received the same instructions.
- Performs work in accordance with general outline provided orally.
- Correctly infers details of assignments given only in general terms.

Performance Levels:

Satisfactory

Properly performs work when concrete, specific instructions are given orally. Asks pertinent questions when parts of the instructions are unclear or omitted.

Superior

Properly performs work assigned orally. Answers questions or explains work to others. Correctly infers details or portions of instructions that were omitted.

**44. FOLLOW WRITTEN DIRECTIONS** – Performs work accurately as directed in writing.

Level of Competency Required by Job:

**Level 1:**      ***Perform tasks assigned in writing.***

Level 2:      Perform work after reading instructional manual.

Level 3:      Perform work after completion of training modules or programs presented in writing.

Examples of Behavioral Indicators:

- Correctly completes work assigned in writing.
- Answers questions and/or explains work to others who received the same instructions.
- Learns and applies information presented in writing (instruction manual; training program).
- Correctly infers details of work to be performed that were unclear or omitted as presented in writing.

Performance Levels:

Satisfactory

Correctly performs work assigned or for which training was provided in writing.

Superior

Understands instructions and training materials presented in writing to the extent that is able to answer questions or explain to others. Correctly infers unclear or omitted details as presented in writing.