

COMPETENCY MODEL FOR STEAM PLANT OPERATING SUPERVISOR (5625)

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of **STEAM PLANT OPERATING SUPERVISOR**. (Numbers refers to the order of competencies in the Competency Bank.)

- 3. Judgment and Decision Making
- 8. Safety Focus
- 13. Stress Tolerance
- 20. Job Knowledge
- 26. Electrical Understanding
- 28. Supervision
- 33. Interpersonal Skills
- 47. Written Communication

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

3. JUDGMENT AND DECISION MAKING – Accurately assesses situations, seeks new information if necessary, and applies all available information to reach sound conclusions/formulate effective response.

Level of Competency Required by Job:

Level 1: Training and guidelines needed to respond to immediate situations within very specific function are provided (or supervisor available to assist).

Level 2: General information and guidance to assist in responding to a variety of situations across a range of circumstances are provided.

Level 3: Little guidance available for responding to a wide range of complex situations with far-reaching and/or enduring consequences.

Examples of Behavioral Indicators:

- Effectively responds to atypical situations.
- Asks questions or otherwise obtains additional relevant information to make a decision.
- Formulates a decision and necessary actions based on available facts.
- Correctly infers appropriate response based on information provided and existing policies, personal experience, and/or consultation with others.
- Discusses conclusions/possible responses with others before taking action as necessary.
- Considers impact of decisions on all affected parties.

Performance Levels:

Satisfactory

Correctly assesses routine and unusual situations and reaches appropriate conclusions for actions needed. Obtains additional information and/or consults with others as necessary.

Superior

Evaluates new situations accurately to establish an appropriate response or plan of action. Recognizes the impact on all affected parties, as well as the possible ramifications and/or repercussions of setting a precedent.

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.

Safety Focus Areas

1. Knowledge of safety principles, procedures, and regulations as required by the Department of Water and Power and California Division of Occupational Safety and Health Administration (Cal-OSHA) when working in a thermal-electric generating plant including those related to the safe operation of equipment, storage and handling of batteries, hazardous compressed gases and volatile liquids, working with high voltages and in confined spaces, and use of personal protective equipment (PPE) sufficient to ensure a safe work environment for oneself and others.
2. Knowledge of the general contents of a Spill Prevention, Control, and Countermeasure Plan, including the appropriate steps to take and individuals to notify when a spill occurs sufficient to ensure the plan is followed.
3. Knowledge of the purpose, content, and use of Safety Data Sheets (SDSs), including gathering information regarding specific materials or products such as, the hazards, properties, precautions, and appropriate steps to take when handling, storing, and disposing of such materials and/or reacting to and cleaning up material spills sufficient to follow instructions accordingly.
4. Knowledge of first aid principles and practices including those applicable to cuts, electrical shocks, heat, and chemical burns sufficient to evaluate injuries, apply first aid in emergencies, and provide proper notification and documentation.
5. Knowledge of environmental concerns as they relate to thermal-electric generating stations, including noise, particulate emissions such as sawdust, spills of hot water and chemicals into waterways, effects on plant and animal life in nearby land and water, and hazardous materials and wastes located at thermal-electric generating stations sufficient to notify stakeholders affected by the environmental issues and to minimize negative impact to the environment.
6. Knowledge of regulatory agencies and their authority as they relate to thermal-electric generating plants, including the South Coast Air Quality Management District (SCAQMD) and its concern with airborne emissions, the California State Water Resources Control Board and its concern with wastewater, and the California Division of Occupational Safety and Health Administration (Cal-OSHA) and its regulations sufficient to write reports to the proper agency and ensure compliance with regulations.

13. STRESS TOLERANCE – Maintains effective performance when under pressure, confronted with opposition or criticism, and/or when the situation is dangerous.

Level of Competency Required by Job:

Level 1: Assignment may include varied or heavy workload; new tasks may need to be learned; members of the public and, at times, co-workers may be rude.

Level 2: ***Insufficient staff or resources may be available to accomplish work. Priorities/objectives may be unclear and/or direction uncertain. Role ambiguity regarding responsibilities may exist. May encounter disagreement or criticism when performing job activities.***

Level 3: Presentation and defense of position in a public forum, which at times entails facing opposition, may be required. Work environment may be fast-paced and one in which urgent decisions must be made. Making life-or-death decisions may be necessary.

Examples of Behavioral Indicators:

- Remains composed and focused on the task at hand in the presence of obvious stressors.
- Understands that rudeness or opposition is not typically personal attacks.
- Continues to make good decisions under urgent circumstances or when in danger.
- Soothes others who are more adversely affected by stress.

Performance Levels:

Satisfactory

Continues to perform effectively under stressful circumstances.

Superior

Acknowledges stress, but appears to be unaffected by it. Concentrates extra effort on accomplishing the task at hand. Assists others with effective coping.

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 is concrete, factual, and/or procedural and may be defined by the organization. Situations in which it is applied are quite consistent.

Level 2: Knowledge is substantive and may be defined by an external trade, field, or profession. Situations in which it is applied vary and, as such, require breadth and depth of understanding.

Level 3: Knowledge is abstract, conceptual, and/or complex and may be supported by a well-defined academic discipline or authoritative sources (e.g., laws, ordinances, government guidelines/regulations/codes). Situations in which it is applied may vary greatly or be novel.

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.
- Sought out as a source of information by others.

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.

Job Knowledge Areas

1. Knowledge of the operation of thermal-electric generating units, such as conventional boiler, supercritical boiler, combined cycle, simple cycle, and auxiliaries sufficient to recognize abnormal conditions, ensure that corrective actions are taken, anticipate necessary actions based on certain conditions, and provide training to staff.
2. Knowledge of pneumatic, electronic, and distributed controls, such as alarms related to fuel/air ratios, emissions through stack, pressures, temperatures, flows, drum levels, and conductivity sufficient to provide training and supervision in the proper operation of a thermal-electric generating station.
3. Knowledge of the purpose and operation of equipment used in thermal generation such as heat recovery steam generators, boilers, pumps, compressors, fans, blowers, and valves, including how to start and stop the equipment, their relationship to the system, how to return to operating parameters, and how to recognize malfunctioning equipment sufficient to take corrective action, when necessary, and provide training, as needed, to staff.
4. Knowledge of thermodynamics such as the use of wet steam, dry steam, liquids, and saturates, and how to convert liquid to gas to superheat, sufficient to control the efficiency of the unit and to determine the heating value obtained from the fuel used.
5. Knowledge of operating ratios involved in thermal-electric generating stations, such as fuel/air, volt/amperes, feed water flow/steam flow, and British Thermal Unit (BTU)/kilowatt hour sufficient to ensure equipment is performing properly and to provide training to staff.
6. Knowledge of chemical reactions in thermal generation that occur with salt, chlorine, oxygen, calcium, acids, and phosphates, and the consequences of improper proportions of chemicals in systems sufficient to supervise operations of the unit and to provide training to staff.
7. Knowledge of the communication system used in a thermal-electric generating station, including the correct information to relay, the importance of the information, and emergency communications, sufficient to maintain unity in the system, to relay orders/occurrences to others, and to supervise and train staff.
8. Knowledge of the forms and logs used in plant operations such as bids, clearances, work orders, unit logs, and safety logs, including the purpose of each, the information to be included, how and when to use, applicability to the job, and the

procedures to properly write logs, sufficient to complete and review the forms and logs used in plant operations.

9. Knowledge of Department of Water and Power System Operating Procedures related to plant operations such as accident prevention tagging, handling high voltage equipment, filling out forms, guidelines for clearances, and isolation of equipment sufficient to ensure operating procedures are properly followed.

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.

Electrical Understanding Area

1. Understanding of electrical systems and equipment used in thermal-electric generating stations, including generators, synchronous condensers, circuit breakers, and conductors, and how through the use of transformers, electricity is provided to the system and auxiliary equipment, system voltage controls, and switching procedures, sufficient to monitor the unit and electrical system and provide training to staff.

28. SUPERVISION – Ability to assume direct responsibility for all aspects of the performance of a work group, which requires knowledge and/or ability in the areas of:

- Planning and goal setting
- Creating a safe and positive work environment
- Establishing standards and training employees
- Motivating employees and teambuilding
- Performance Management (assigning, monitoring, facilitating, reviewing and evaluating work, and providing feedback)
- Supporting and developing employees through delegation and participation
- Taking disciplinary action including progressive discipline
- Provisions of employees' MOU's and handling grievances
- Legal requirements including EEO, ADA, FLSA, FMLA, and Workers' Compensation provisions
- Civil Service Commission Rules and Policies related to the management of employees
- Administrative Code provisions related to the management of employees
- Budget processes sufficient to request and justify expenditures in a correct and timely manner

Level of Competency Required by Job:

- Level 1: Supervises small workgroup of employees performing the same or highly related work.**
- Level 2: Supervises a larger workgroup of employees performing various types of work.
- Level 3: Supervises employees including provision of coaching and advice to subordinate supervisors.

Examples of Behavioral Indicators:

- Plans, assigns, and monitors work progress.
- Trains employees to do work.
- Evaluates work and gives positive and negative feedback.
- Displays knowledge of legal requirements including applicable Federal and State laws, Administrative Code provisions, Civil Service Commission Rules and Policies, and MOU provisions.

Performance Levels:

Satisfactory

Proficiency in supervision sufficient to supervise a workgroup in terms of task orientation, interpersonal concerns, and personnel administration.

Superior

Proficiency in supervision sufficient to serve as a resource to others and/or represent department position in a public forum.

33. INTERPERSONAL SKILLS – Interacts effectively and courteously with others.

Level of Competency Required by Job:

Level 1: ***Interact with members of the workgroup, supervision, and/or the public in a cordial, service-oriented manner.***

Level 2: Interact across department lines and with appointed City officials, and/or members of the public, at times under adversarial circumstances, in a cordial, respectful manner.

Level 3: Interact with appointed and elected City officials, department heads, representatives of external organizations, and/or the media in a cordial, effective manner.

Examples of Behavioral Indicators:

- Works well with others toward mutual objectives.
- Does not arouse hostility in others.
- “Disagrees without being disagreeable.”
- Elicits acceptance/cooperation from others.
- Affords all individuals respect, regardless of their role or status.
- Effectively addresses concerns of politicians or others who may have their “own agenda.”

Performance Levels:

Satisfactory

Behaves in a courteous, respectful, cooperative manner toward co-workers, other City employees, and members of the public.

Superior

Facilitates positive interpersonal relations within/among workgroups and toward members of the public. Adept at finding similarities and grounds for cooperation/mutual benefit.

47. WRITTEN COMMUNICATION – Communicates effectively in writing.

Level of Competency Required by Job:

Level 1: Write notes/e-mails. Completes forms with some open-ended responses (sentences).

Level 2: Write letters, articles/reports, and/or detailed descriptions of activities/occurrences.

Level 3: Write lengthy reports, instruction manuals, in-depth analyses/reviews of complex issues and/or articles for publication. Reviews the written work of others.

Examples of Behavioral Indicators:

- Writing includes the necessary information to convey the intended message.
- Sufficiently few errors in spelling, punctuation, grammar to not interfere with the intended message or distract the reader.
- Little editing or re-writing needed to produce a final product.
- Composes materials efficiently.
- Information is presented in a well organized manner.
- Tone and degree of formality are appropriate to the purpose and audience.

Performance Levels:

Satisfactory

Writes material that clearly communicates the necessary information; needs little editing.

Superior

Precisely uses words and organizes information in a way that enhances presentation of the message. Virtually no editing needed.