

**COMPETENCY MODEL FOR
BOILERMAKER
CLASS CODE 3735**

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

- 3. Judgment and Decision Making
- 8. Safety Focus
- 10. Physical Capability
- 13. Stress Tolerance
- 20. Job Knowledge
- 24. Mechanical Aptitude
- 35. Teamwork
- 40. Credibility
- 43. Follow Oral Directions

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, practices, and procedures as required by the Department of Water and Power and the California Occupational Safety and Health Administration (Cal-OSHA) when fabricating, constructing, assembling, installing, repairing, and maintaining pressure vessels and auxiliary equipment, penstocks, tanks, ducts boilers, heat exchangers, and other pressure vessels and accessories, including those related to the proper use of industrial and personal protective equipment (PPE) sufficient to ensure the safety of oneself and others.
2. Knowledge of safe rigging principles, practices, and procedures, including the proper use of hand signals and accurately calculating load capacities sufficient to safely rig loads into position and ensure a safe working environment.

10. PHYSICAL CAPABILITY – Strength, endurance, flexibility, and/or coordination.

Level of Competency Required by Job:

Level 1: Sitting and/or standing for extended periods of time.

Level 2: Awkward body position and/or precise motions required; and/or repeated lifting, carrying, and/or manipulation of objects; and/or walking for extended periods of time.

Level 3: Continuous or extreme exertion of physical effort.

Examples of Behavioral Indicators:

- Sits and may occasionally stand or walk for entire workday (except breaks).
- Walks for the duration of the workday.
- Repetitive motion required to perform task.
- Repeatedly lifts and carries heavy objects.
- Exerts maximal effort for extended periods of time.

Performance Levels:

Satisfactory

Performs tasks requiring physical capability satisfactorily and without undue physical stress or harm.

Superior

Performs tasks requiring physical capability correctly with relative ease. May be asked to perform the most physically demanding tasks or be sought by co-workers for assistance.

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, coworkers 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 tools and equipment used to fabricate, assemble, install, and repair power generating components, such as boilers, condensers, drums, heat exchangers, tanks, penstocks, diffuser plates, control gates, and pressure vessels made of steel plate sufficient to ensure the proper use and selection of applicable tools and equipment dependent on the type of work being completed.
2. Knowledge of methods and techniques used to cut and fabricate metal, such as oxygen/acetylene torch-cutting, carbon arc gouging, gas tungsten arc welding (GTAW), shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and flux-cored arc welding (FCAW), sufficient to effectively repair equipment and components and meet applicable American Society of Mechanical Engineers (ASME) requirements.
3. Knowledge of the application and interpretation of blueprints and sketches related to boilermaking, such as identifying and locating joint preparation, nomenclature, weld symbols, and dimensions sufficient to determine the proper materials and processes required for the fabrication, construction, assembly, installation, and/or repair of pressure vessels and auxiliary equipment, penstocks, tanks, ducts boilers, heat exchangers, and other pressure vessels and accessories.

24. MECHANICAL APTITUDE – Accurately predicts the impact of forces on objects and assesses the behavior of other physical phenomena (e.g., volume, weight, velocity). Readily learns work involving the application of mechanical principles.

Level of Competency Required by Job:

- Level 1: Maintain a safe work environment by ensuring objects in it are stable, tools and equipment are properly used.
- Level 2: Know the physical properties of objects in the work environment and correctly anticipate the action of forces upon them; performs work accordingly (correctly and safely).

Level 3: *In-depth understanding of mechanical and physical phenomena sufficient to design and/or oversee the construction of systems.*

Examples of Behavioral Indicators:

- Recognizes the impact of an earthquake on objects in the work environment and re-arranges them as possible to avoid possible damage or destruction and potential to cause injury.
- Uses tools properly to accomplish work correctly and safely.
- Recognizes the effects of various actions on objects and performs only those actions that will accomplish intended result and will not cause property damage or injury.
- Systems designed and/or for which construction is overseen operate as intended upon completion.

Performance Levels:

Satisfactory

Recognizes the operation of mechanical/physical phenomena sufficient to readily learn and perform work of a mechanical nature.

Superior

Displays exceptional insight into the operation of mechanical phenomena, and makes correct inferences regarding it. Promptly and accurately troubleshoots problems.

35. TEAMWORK – Interacts effectively with others to achieve mutual objectives; readily offers assistance to others to facilitate their goal accomplishment.

Level of Competency Required by Job:

Level 1: Work effectively as a member of a work unit or project team. Readily offer assistance to others when they have too much work or have too little.

Level 2: *Work effectively as a team member in which different people have different roles/responsibilities and perspectives. Identify points for collaboration with co-workers; readily offer and request assistance.*

Level 3: Work effectively as a part of an interdependent team (your work gets done only if the work of the whole team is done; evaluation of team performance is more relevant than individual performance).

Examples of Behavioral Indicators:

- Discusses work-related matters with co-workers.
- Offers and requests assistance readily.
- Offers and is receptive to suggestions.
- Identifies problems with workflow that will prevent team from accomplishing its goals.
- Provides constructive criticism and feedback to team members to improve overall functioning of team.
- Assigns credit to team for accomplishments.

Performance Levels:

Satisfactory

Cooperates with co-workers and fulfills responsibilities as a member of a project team. Maintains a focus on common objectives and offers and requests assistance readily.

Superior

Sees the team as a whole; acknowledges that performance of the team is what in reality is evaluated by others. If anyone fails, everyone on the team fails.

40. CREDIBILITY– Is truthful and sincere; objectively and clearly provides all pertinent information rather than being vague, omitting negative information or only stating what listeners “want to hear.”

Level of Competency Required by Job:

Level 1: Freely and openly share accurate job-related information with coworkers.

Level 2: Provide complete, accurate information to other City employees and members of the public.

Level 3: Represent department to the Mayors’ Office, City Council, City Commissions, and/or department heads, and/or to external organizations, professional associations, and/or the media.

Examples of Behavioral Indicators:

- Admits mistakes.
- Information provided is consistent (not contradictory or stating different things to different people).
- Answers questions directly and thoroughly.
- Shares credit for achievements.
- Acts in the best interest of the organization, not self interest.

Performance Levels:

Satisfactory

“Tells the complete story” from the onset. Is forthcoming with full information when questioned. Statements are consistent. Readily admits mistakes and gives credit to others.

Superior

Information provided is complete and accurate, and includes any negative information or information contrary to self interest. Does not attempt to be vague or put a “spin” on negative information to make it appear more positive.

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.