

## **COMPETENCY MODEL FOR WASTEWATER TREATMENT MECHANIC (5614)**

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

- 1. Reading Comprehension
- 3. Judgment and Decision Making
- 8. Safety Focus
- 23. Equipment Operation
- 24. Mechanical Aptitude
- 32. Responsiveness and Follow up
- 35. Teamwork
- 53. Leadership

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.

**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.

**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 Cal/OSHA regulations and safety principles and practices related to personal protective equipment (PPE) and other safety equipment, such as wearing safety shoes with non-skid soles, rubber gloves, eye protection, protective hearing devices, respirators, hard hats and full body suits, sufficient to safely perform all applicable duties and meet all applicable regulations for PPE.
2. Knowledge of the safe operation and maintenance of tools and equipment, such as impact wrenches, power drills, aligning tools, reciprocating saws and other hand and power-driven tools and equipment, in order to ensure that proper safety procedures are followed and maintain a safe working environment for oneself and others.
3. Knowledge of safe rigging and lifting practices, such as loading equipment within safe carrying capacity, starting and stopping the lift slowly, and watching for potential obstructions, sufficient to safely complete assignments that require rigging and lifting.
4. Knowledge of equipment isolation procedures, such as Lockout/Tag-out/Block-out, identification and isolation of hazardous energy sources, and ensuring machinery is rendered inoperative prior to maintenance, sufficient to safely perform repairs and maintenance on equipment.
5. Knowledge of Cal/OSHA emergency procedures regarding evacuation, containment, and reporting sufficient to analyze conditions and quickly adopt an effective course of action in case of an emergency.
6. Knowledge of Cal/OSHA procedures for confined space entry and safely working near a confined space, including identifying confined spaces and permit-required confined spaces, ensuring ventilation requirements are met, air monitoring, always having an observer outside of the confined space, proper PPE, and lowering tools and materials with ropes, sufficient to ensure safety of self and others.
7. Knowledge of fall protection practices and procedures, such as placement of guardrails, using a safety harness, and implementing administrative controls, sufficient to reduce the likelihood of falls.
8. Knowledge of traffic delineation requirements, such as bringing cones, blocking off any open man-holes to the public, and setting up guard rails to any ground openings, sufficient to ensure the safety of self, the public, and other employees.

**23. EQUIPMENT OPERATION** – Operates specialized equipment in performance of job duties.

Level of Competency Required by Job:

Level 1: Operate equipment based on on-the-job training.

**Level 2: Operate equipment based on attendance at a training program and practice.**

Level 3: Operate equipment for which in-depth, complex training was required and which may require certification.

Examples of Behavioral Indicators:

- Operates equipment proficiently.
- Operates equipment with strict adherence to safety procedures.
- Understands the operation of equipment used on the job and correctly answers questions about it.
- Willingly participates in any training necessary to maintain up-to-date knowledge of equipment operation.

Performance Levels:

Satisfactory

Operates equipment safely and with a high degree of proficiency.

Superior

Operates equipment with extreme proficiency and correctly answers questions about its operation. Trains and/or coaches others in the operation of equipment.

## Equipment Operation Areas

1. Knowledge of blowers, compressors, pumps, and auxiliaries, including gear reducers, lubrication, and fasteners, sufficient to operate, repair, and perform preventative maintenance and corrective maintenance on necessary equipment.
2. Knowledge of hand and power tools, such as impact wrenches, drivers and drills, sufficient to effectively operate such tools and to repair machinery commonly used on the job.
3. Knowledge of equipment such as dial indicators, laser alignment, and pneumatic tools, sufficient to operate such equipment and perform both scheduled and unscheduled repairs and maintenance.
4. Knowledge of equipment logs and instruments, such as gauges, meters and control panels, and equipment informational resources, such as manuals, charts, reports and history, sufficient to gather information and perform maintenance and repairs.

**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.



## Mechanical Aptitude Areas

1. Knowledge of methods of repair and overhaul of water reclamation equipment, such as gas and air-compressor units, pumps, gear drivers, and boiler auxiliary equipment, sufficient to maintain the safe operation of such equipment.
2. Knowledge of terminology commonly used in mechanical repair work related to alignment, tolerances, output, and pump curve sufficient to effectively communicate with other mechanical workers.
3. Knowledge of common problems encountered related to wastewater equipment, such as abnormal temperatures and noises and mechanical issues, including a pump with low flow, no flow, or cavitation, sufficient to troubleshoot issues as they arise.

**32. RESPONSIVENESS AND FOLLOW-UP** – Executes actions as requested or to which a commitment has been made; continues involvement as needed.

Level of Competency Required by Job:

- Level 1: Willingly accept job assignments and, upon completion, asks whether any other actions are necessary.
- Level 2: Ensure that all job responsibilities are fulfilled within their designated timeframes. Willingly accept, and may volunteer for, additional assignments, but does not overextend. Anticipate and accommodate the need for continued involvement.**
- Level 3: Ensure that staff and other resources are available (or can be made available) to reasonably allow for completion of work before making a commitment. If not, make adjustments to ensure completion of work or re-establish priorities and communicate to all involved parties. Recognize the probable need for continuation of some staff involvement beyond the designated timeframe to ensure success.

Examples of Behavioral Indicators:

- Willingly accepts assignments and completes assigned work.
- Monitors “completed” work to determine whether additional issues to be addressed have arisen.
- Volunteers for assignments when able to assure their timely completion.
- Carefully considers available staff and resources, and competing priorities, before making commitments to complete additional work.

Performance Levels:

Satisfactory

Completes assigned work. Realistically appraises the likelihood of completing additional work before accepting or volunteering for it. Recognizes the usual need for follow-up once assignments are submitted.

Superior

Completes assigned work in an expeditious manner. Often ready to accept additional work or volunteer for it. Readjusts priorities and/or revises plans to maximize productivity. Diligently monitors the possible need for follow-up.

**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.

### 53. LEADERSHIP – Influences others toward goal accomplishment.

#### Level of Competency Required by Job:

**Level 1:** *Assume responsibility for operations or a situation when necessary. Direct the actions of others or otherwise ensure required actions are taken. Remain responsible until relieved or situation is resolved.*

Level 2: Motivate others to continual activity focused on goal accomplishment. Provide clear objectives and articulate individual activities necessary to achieve them; ensure resources necessary to do so are available. Monitor work progress and provide feedback; assess results.

Level 3: Articulate a vision, convey it to others, and assign responsibilities (or assure they are assigned) for achieving it. Monitor progress, make adjustments as necessary, and evaluate results.

#### Examples of Behavioral Indicators:

- Evaluates circumstances, determining what needs to be done, and ensuring individual responsibility for performing specific actions is assigned.
- Follows-up to ensure that specific actions have been taken and overall objective has been accomplished.
- Clearly communicates objectives and responsibility/individual actions necessary to achieve them.
- Monitors work in progress, provides feedback to those involved, and makes adjustments to work plans/processes to ensure goal attainment.
- Evaluates completed work for quality, thoroughness, and effectiveness to determine whether re-work or additional work is required to meet intended objectives and to provide learning for future assignments

#### Performance Levels:

##### Satisfactory

Assumes responsibility for work of others when required or necessary. Ensures actions taken to achieve objectives, and evaluates results to determine any follow-up needed.

##### Superior

Articulates vision/states clear objectives and assigns responsibility/motivates others toward achievement. Monitors progress; gives feedback; evaluates results; ensures follow-up.