

COMPETENCY MODEL FOR AIR CONDITIONING MECHANIC (3774)

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

- 3. Judgement & Decision Making**
- 4. Analytical Ability**
- 7. Self-Management**
- 8. Safety Focus**
- 20. Job Knowledge**
- 29. Fact Finding**
- 32. Responsiveness & Follow-up**
- 35. Teamwork**

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.

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.

7. SELF MANAGEMENT – Organizes and plans for task accomplishment; manages time and works diligently to complete assigned work/fulfill responsibilities.

Level of Competency Required by Job:

Level 1: Order tasks for efficient performance; maintain awareness of time allotted and deadlines in order to ensure they are met.

Level 2: *Plan and perform work in a way that maximizes efficient performance; establish and adjust priorities to ensure timely completion of most critical assignments.*

Level 3: Allot time to responsibilities proportional to their prominence, priority, and impact.

Examples of Behavioral Indicators:

- Performs only work activities during work hours.
- Alters means of performing work when original approach proves to waste time.
- Keeps a “to do” list (with indication of priority and deadlines, if necessary).
- Requests assistance as necessary when it becomes clear that work will not be completed on time.
- Demonstrates a record of progress with respect to all assignments/responsibilities.
- Uses optimal means of communication for efficiency and effectiveness.

Performance Levels:

Satisfactory

Conducts self while at work in a manner that ensures work will be completed as scheduled, or provides explanation or secures assistance or adjustment of schedule if it will not be.

Superior

Seeks efficiencies in doing work to maximize productivity. Plans work carefully and follows the plan or makes adjustments if it is disrupted. Maintains personal responsibility for all work accomplishment.

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 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.

**AIR CONDITIONING MECHANIC (3774)
JOB KNOWLEDGE AREAS 2019**

1. Knowledge of the operation principles of refrigeration and air conditioning systems and related machinery and equipment such as the refrigeration and heating cycle, sequence of operation, and system efficiencies in order to install, operate, maintain, and repair refrigeration, water cooling, ventilating, heating, and air conditioning equipment.
2. Knowledge of the practices and techniques of adjusting refrigeration, air conditioning, ventilation and heating equipment and control devices including pneumatic, low voltage control wiring, and direct digital controls in order to properly troubleshoot, diagnose, and repair units.
3. Knowledge of physical properties of various liquids and gases including but not limited to Freon, R-22, R-134, and R-410 used in refrigerating and air conditioning equipment systems such as boiling points, and optimal pressure and temperature in order to safely handle and transport.
4. Knowledge of the types and uses of tools, equipment, and gauges used by air conditioning mechanics in physical and electrical testing such as common mechanic's hand tools and wrenches, micrometers calipers, pipe cutters, threaders, brazing and soldering equipment, gas welding equipment, small drill presses, and electrical test equipment in order to adjust, repair, replace, and overhaul refrigeration, air conditioning systems and related machinery.
5. Knowledge of the methods used in soldering and brazing when joining copper pipe and tubing sufficient in the installation and overhauling of refrigeration, air conditioning, heating, ventilation units and related machinery.
6. Knowledge of the procedures used in troubleshooting and repairing HVAC equipment using plans, blueprints, and schematics in order to correct electrical, pneumatic, and mechanical failures.
7. Knowledge of hydronics, airflow and temperature differentials used in HVAC systems sufficient to troubleshoot, maintain, and repair air conditioning units and related machinery.
8. Knowledge of the proper usage and transporting of recovery/reclaiming cylinders in order to safely reuse or dispose of refrigerant.
9. Knowledge of rules and regulations such as EPA 608 and SCAQMD 1415 in order to comply with refrigerant standards and maintain accurate records.
10. Knowledge of IAQ (Indoor Air Quality) standards pertaining to maintenance techniques such as ensuring proper air filtration and building ventilation in order to maintain air quality standards.
11. Knowledge of the DDC (Direct Digital Controller) systems used for troubleshooting, scheduling, and monitoring/trending sufficient to perform field testing, installation, and calibration.

29. FACT FINDING – Obtains required information through questioning, review of existing materials, or securing new materials to answer a question or address a problem.

Level of Competency Required by Job:

Level 1: Look up information available in the workplace (including use of the internet) or by asking questions of co-workers or supervisor.

Level 2: *Interview individuals and/or obtain necessary information from files, the library, and/or the internet.*

Level 3: Conduct in-depth interviews/interrogations or depositions. Locate obscure reference material containing germane information by correctly identifying needed information, making logical inferences regarding where it might be available, and discerning from newly acquired information relevant additional materials.

Examples of Behavioral Indicators:

- Asks a series of insightful questions in a logical order.
- Correctly identifies persons most likely to have the needed information.
- Listens carefully to responses from others to discern all relevant information stated.
- Makes logical assumptions about where certain types of information might be found; or asks others who are likely to know.
- Persists in locating relevant information until a sufficient amount is available to permit answering question or addressing the problem fully.

Performance Levels:

Satisfactory

Obtains necessary information through scrutiny of existing files and other resources, correctly identifying and obtaining other sources of information, and/or asking questions.

Superior

Exhibits great insight in identifying who would have certain information, or in what materials it might be located. Carefully crafts questions to extract needed information. Persists until sufficient information is gathered to formulate a logical conclusion.

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.

