

**COMPETENCY MODEL FOR  
INDUSTRIAL CHEMIST  
CLASS CODE 7834**

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

- 3. Judgment and Decision Making
- 20. Job Knowledge
- 28. Supervision
- 33. Interpersonal Skills
- 45. Oral Communication
- 47. Written Communication
- 53. Leadership
- 58. Industry Knowledge

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.

**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.

**Industrial Chemist (7834)**  
**Job Knowledge Areas**

1. Knowledge of the principles of physical chemistry, biochemistry, and organic and inorganic chemistry, with particular references to quantitative and qualitative analysis, sufficient to review technical reports on air quality, waste management, health, and safety standards and analyze investigation findings on situations, such as equipment failure and occupational hazards.
2. Knowledge of modern chemical laboratory procedures, techniques, and equipment sufficient to maintain record of laboratory tests and reagents and ensure the laboratory is sufficiently supplied.
3. Knowledge of the requirements and standard testing methods of the American Society for Testing Materials, other organizations, and regulatory agencies sufficient to conduct laboratory tests and ensure all staff are using the technical standards for safety and accuracy.
4. Knowledge of federal, state, and local regulations and standards in the areas of air quality control, liquid and solid waste management, occupational safety and environment sufficient to ensure the Department is in conformance with such principles.

**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 team building
- 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.

### 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.

**45. ORAL COMMUNICATION** – Communicates orally in a clear, concise, and effective manner.

Level of Competency Required by Job:

- Level 1: Exchange specific, job-related information orally with others in the immediate work environment or via telephone and/or radio.
- Level 2: Obtain/provide/present general and/or job-specific information orally to a variety of others in various situations.
- Level 3: **Obtain/provide/present a diverse array of information orally at varying levels of complexity to a wide range of others across many different situations and circumstances.**

Examples of Behavioral Indicators:

- Audience clearly understands the intended message.
- Rarely must repeat information in response to questions.
- Refrains from use of unnecessary words, phrases, or jargon.
- Provides a level of detail appropriate to the situation (avoids too much or too little detail).
- Speaks at a level appropriate to the audience in terms of terminology, sentence structure, and simplicity/complexity of ideas expressed.
- Uses words with precision (vocabulary) to convey exact information.

Performance Levels:

Satisfactory

Speaks clearly and audibly, providing the appropriate information and level of detail. Typically conveys the message on the first attempt. Answers questions accurately and directly.

Superior

Speech is direct and to the point. Speaks convincingly and with authority when appropriate. Maintains sensitivity to the audience while providing thorough information with the appropriate level of detail through the use of precise language.

## 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.



### 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.

**58. INDUSTRY KNOWLEDGE** – Knows sources of information (publications, websites, professional associations), college programs, consultants, vendors, and peers within field of endeavor; accesses them when needed.

Level of Competency Required by Job:

- Level 1: Can locate job-related information from external sources when necessary.
- Level 2: **Read job-related publications and know/may be a member of professional associations. Some familiarity with college programs, consultants, vendors, and/or others in the field.**
- Level 3: Subscribe to job-related publications and is a member of professional association(s). Know many college programs, consultants, and vendors, and has a well-developed network of peers within the field.

Examples of Behavioral Indicators:

- Reads/subscribes to job-related publications.
- Knows consultants/vendors in the field including their products/services and reputation.
- Attends conferences or other job-related training/presentations.
- Makes presentations to professional associations.
- Has contacts on college faculties to call upon if needed.

Performance Levels:

Satisfactory

Aware of external resources available in the field. Can locate and obtain materials and/or locate and contact professional associations, consultants, vendors, or peers if necessary.

Superior

Knows many external resources in field, including publications, educational programs, consultants, and vendors. Has a well-established network of peers. Belongs to professional associations and attends conferences or other training sessions. Provides research results and/or benchmarking data to the field.

**Industrial Chemist (7834)**  
**Industry Knowledge**

1. Knowledge of literature in the materials testing field as applied to chemical testing, such as literature from the American Society for Testing Materials, sufficient to be prepared for changes in new techniques and develop new procedures for staff to stay current with technological changes.
2. Knowledge of vendors and consultants in the materials testing field as applied to chemical testing that meets requirements such as certification with Environmental Laboratory Accreditation Program (ELAP) sufficient to reach out to solve a variety of chemical problems and ensure the laboratory has required equipment and supplies.
3. Knowledge of Laboratory Inventory Management System sufficient to track laboratory testing results and notify others of results that do not meet recommended limits.

