

Water Quality Compliance Officer

SUMMARY/PURPOSE

To ensure the quality of the City's potable water supply by leading water monitoring programs, lab operations, treatment optimization, and regulatory testing and reporting. Lead studies to vet new treatment chemicals and processes and optimize treatments that are already in place for continuous improvement in finished water quality.

SUPERVISION RECEIVED

The supervisor makes assignments by defining objectives, priorities, and deadlines and assists incumbents with unusual situations which do not have clear precedents. Incumbents plan and carry out the successive steps and handle problems and deviations in the work assignment in accordance with instructions, policies, previous training, or accepted practices in the occupation.

SUPERVISION GIVEN

Does not have direct supervisory responsibility but does have significant oversight of employees or projects that require delegation and direction over the work of others.

ESSENTIAL DUTIES AND RESPONSIBILITIES

1. Create and implement water quality monitoring programs in accordance with industry standards; ensure the collection, testing, and analysis of samples from various locations are completed in a manner consistent with laboratory best practices.
2. Oversee and direct the daily operation of the laboratory and associated work.
3. Update quality manuals, procedures, and equipment for continuous improvement in lab operations.
4. Review work of team members for completeness and quality, and provide feedback as needed.
5. Recommend upgrades for lab and process monitoring equipment and create/perform preventative maintenance programs for this equipment.
6. Perform data review, analysis and trending; interpret these data and provide recommendations for improvement in treatment and distribution operations based on findings.
7. Perform method documentation, training of personnel, and all necessary QA/proficiency testing and reporting under the Minnesota Environmental Laboratory Accreditation Program (MNELAP) to maintain status as an accredited microbiology lab.
8. Maintain compliance with EPA testing and reporting requirements under the Surface Water Treatment Rule (SWTR) and other applicable regulations.
9. Perform required monitoring and reporting in accordance with the Lead and Copper Rule and its revisions (LCR/LCRR/LCRI); assist other departments in their work regarding lead mitigation, including development of sampling procedures and testing schemes to identify sources of lead and monitor lead following service line disturbances.
10. Perform required monitoring of emerging contaminants of concern and make recommendations regarding additional testing and treatment as needed.
11. Ensure proposed chemicals are thoroughly evaluated before their implementation into the treatment process; design and execute pilot and demonstration studies, including data analysis and reporting; provide recommendations and perform follow-up monitoring to verify effectiveness.
12. Lead optimization of treatment processes for continuous improvement in finished water quality.
13. Train team in safe and proper work methods and procedures.
14. Provide information, instruction, and leadership to team members both verbally and in writing as needed.
15. Respond to and resolve customer inquiries and concerns related to water quality. Troubleshoot and coordinate with other departments as necessary for resolution.
16. Coordinate the development, publication, and distribution of the Consumer Confidence Report.

17. Develop presentations and perform public speaking and education concerning water quality for the water system.
18. Be an effective team member by exhibiting self-motivation, supporting other employees in handling tasks, interacting effectively and respectfully with others, showing a desire to contribute to the team effort, accepting assignments willingly, and completing tasks within agreed upon timelines.
19. Coordinate with various City departments, other government agencies, and community groups to develop methods of sharing resources, minimizing duplication, and simplifying procedures.
20. Provide training on new or modified procedures and policies to all affected parties.
21. Coordinate and perform sampling techniques, scheduling, lab protocol, safety, and testing functions and programs for the City.
22. In collaboration with the supervisor, organize and direct the work activities of assigned team, and determine work priorities, assignments, and work schedules.
23. Provide input on decisions regarding the hiring processes and onboarding procedures, and discipline of personnel.
24. Establish and maintain positive working relationship with the supervisor and employees by maintaining two-way communication, producing consistent results, advocating for the team when appropriate, and offering expertise to improve processes, systems, and the organization.
25. Other duties may be assigned.

JOB REQUIREMENTS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed are representative of the knowledge, skills, and abilities required.

1. Education & Experience Requirements
 - A. Bachelor's Degree in Chemistry, or a related professional field, and two (2) years of full-time, related professional experience; OR a minimum of six (6) years of related education and/or full-time, verifiable professional experience in a chemical and/or bacteriologic testing laboratory.
 - B. Master's of Science in Chemistry or a related field degree preferred.
2. License Requirements
 - A. Possess and maintain a valid Minnesota Class D driver's license or privilege.
3. Knowledge Requirements
 - A. Knowledge of best practices in laboratory operations, including requirements under MNELAP.
 - B. Knowledge of study design, statistical analysis, and interpretation of data.
 - C. Thorough knowledge of the drinking water treatment process for a surface water treatment plant and applicable chemistry.
 - D. Knowledge of laboratory documentation and reporting, including regulatory reporting requirements.
 - E. Knowledge of SWTR, LCR/LCRR/LCRI and other applicable drinking water regulations.
 - F. Knowledge of standard laboratory and chemical safety.
 - G. Monitor work for compliance with established methods, guidelines, standards and procedures.
 - H. Review work of team members for completeness and quality, and provide feedback as needed.
 - I. Knowledge of problem-solving and conflict-resolution techniques.
 - J. Knowledge of applicable safety requirements.
 - K. Knowledge of, or the ability to learn, City policies and procedures.
 - L. Knowledge of federal, state, and local laws, statutes, regulations, codes, and standards related to the area of responsibility.
 - M. Knowledge of effective leadership and personnel practices.

4. Skill Requirements

- A. Skill in the safe and recommended use of laboratory equipment to determine the physical, chemical, and bacteriologic components of water.
- B. Skill in study design and data analysis.
- C. Skill in the operation of office equipment including, but not limited to, general computer systems, job required software applications, the internet, and modern office equipment.
- D. Skill in managing one's own time and the time of others.
- E. Skill in completing assignments accurately and with attention to detail.
- F. Skill in using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

5. Ability Requirements

- A. Ability to perform a variety of laboratory tests, analyses, and sampling duties in the field.
- B. Ability to understand and interpret laboratory test results.
- C. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.
- D. Ability to communicate and interact effectively with members of the public.
- E. Ability to communicate effectively both orally and in writing.
- F. Ability to recognize, analyze, and solve a variety of problems.
- G. Ability to organize and prioritize work while meeting multiple deadlines.
- H. Ability to handle difficult and stressful situations with professional composure.
- I. Ability to work successfully as a member of a team and independently with minimal supervision.
- J. Ability to train and lead others.
- K. Ability to interpret and apply laws, contracts, regulations, policies, and procedures.
- L. Ability to enforce safety rules and regulations.
- M. Ability to maintain confidential information.
- N. Ability to demonstrate dependability, responsibility, and consistency in job performance.
- O. Ability to attend work as scheduled and/or required.

Physical Demands

The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as record boxes. The work may require specific, but common, physical characteristics and abilities such as above.

Work Environment

The work environment involves moderate risks or discomforts requiring special safety precautions (e.g., working around moving parts, carts, or machines, or with contagious diseases or irritant chemicals). Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields.

HR: HD	Union: Basic	EEOC:	CSB: 06/11/2024	Class No:
WC:	Pay: 36	EEOF:	CC:	Resolution:

Water LAB CHEMIST Quality Compliance Officer

SUMMARY/PURPOSE

This position, under the supervision of the Water Plant Supervisor, has primary responsibility for testing and ensuring the quality of the City's potable water supply provided to citizens of the area through the City's water distribution system. This includes by leading others in accomplishing their measurement water monitoring programs, lab operations, treatment optimization, and regulatory testing tasks and in making corrections reporting. Lead studies to settings for new treatment chemicals and additives at the processes and optimize treatments that are already in place for continuous improvement in finished water plant quality.

SUPERVISION RECEIVED

The supervisor makes assignments by defining objectives, priorities, and deadlines and assists incumbents with unusual situations which do not have clear precedents. Incumbents plan and carry out the successive steps and handle problems and deviations in the work assignment in accordance with instructions, policies, previous training, or accepted practices in the occupation.

SUPERVISION GIVEN

Does not have direct supervisory responsibility but does have significant oversight of employees or projects that require delegation and direction over the work of others.

ESSENTIAL DUTIES AND RESPONSIBILITIES (other duties may be assigned)

1. A. ~~Collect, test, and analyze~~ Create and implement water quality monitoring programs in accordance with industry standards; ensure the collection, testing, and analysis of samples from various locations are completed in a valid manner consistent with good laboratory practice best practices.
- B. ~~Perform method documentation and all necessary QA/proficiency testing and reporting under the Minnesota Department of Health (MDH) Certification Program as a National Environmental Laboratory Accreditation Conference (NELAC) certified bacteria testing lab.~~
- C. ~~Document all findings for reference and reporting purposes; produce reports.~~
- D. ~~Maintain compliance with EPA drinking water rules for surface water treatment facilities~~
- E. ~~Utilize good laboratory practice to prevent cross-contamination and inaccurate results.~~
2. F. ~~Continually~~ Oversee and direct the daily operation of the laboratory and associated work.
- 2.3. ~~Update quality manuals, procedures, and equipment to maintain certification under NELAC rules for total coliform and escherichia coliform testing. for continuous improvement in lab operations.~~
- G. ~~In collaboration with supervisor, determine work priorities.~~
- H. ~~Assign work and coordinate work schedules.~~
- I. ~~Provide input into decisions regarding the hire and transfer of personnel.~~
- J. ~~Train team in safe and proper work methods and procedures.~~
- K. ~~Monitor work for compliance with established methods, guidelines, standards and procedures.~~
- 3.4. L. ~~Review work of team members for completeness and quality, and provide feedback as needed.~~
- M. ~~Provide input to management to aid in decisions related to discipline and grievance resolution.~~
5. N. ~~Recommend upgrades for lab and process monitoring equipment and create/perform preventative maintenance programs for this equipment.~~
6. Perform data review, analysis and trending; interpret these data and provide recommendations for improvement in treatment and distribution operations based on findings.
7. Perform method documentation, training of personnel, and all necessary QA/proficiency testing and reporting under the Minnesota Environmental Laboratory Accreditation Program (MNELAP) to maintain status as an accredited microbiology lab.

8. Maintain compliance with EPA testing and reporting requirements under the Surface Water Treatment Rule (SWTR) and other applicable regulations.
9. Perform required monitoring and reporting in accordance with the Lead and Copper Rule and its revisions (LCR/LCRR/LCRI); assist other departments in their work regarding lead mitigation, including development of sampling procedures and testing schemes to identify sources of lead and monitor lead following service line disturbances.
10. Perform required monitoring of emerging contaminants of concern and make recommendations regarding additional testing and treatment as needed.
11. Ensure proposed chemicals are thoroughly evaluated before their implementation into the treatment process; design and execute pilot and demonstration studies, including data analysis and reporting; provide recommendations and perform follow-up monitoring to verify effectiveness.
12. Lead optimization of treatment processes for continuous improvement in finished water quality.
13. Train team in safe and proper work methods and procedures.
- 4.14. Provide information and instruction, and leadership to assigned team members both verbally and in writing as needed.
15. Respond to and resolve customer inquiries and concerns related to water quality. Troubleshoot and coordinate with other departments as necessary for resolution.
16. Coordinate the development, publication, and distribution of the Consumer Confidence Report.
17. Develop presentations and perform public speaking and education concerning water quality for the water system.
18. Be an effective team member by exhibiting self-motivation, supporting other employees in handling tasks, interacting effectively and respectfully with others, showing a desire to contribute to the team effort, accepting assignments willingly, and completing tasks within agreed upon timelines.
19. Coordinate with various City departments, other government agencies, and community groups to develop methods of sharing resources, minimizing duplication, and simplifying procedures.
20. Provide training on new or modified procedures and policies to all affected parties.
21. Coordinate and perform sampling techniques, scheduling, lab protocol, safety, and testing functions and programs for the City.
22. In collaboration with the supervisor, organize and direct the work activities of assigned team, and determine work priorities, assignments, and work schedules.
23. Provide input on decisions regarding the hiring processes and onboarding procedures, and discipline of personnel.
24. Establish and maintain positive working relationship with the supervisor and employees by maintaining two-way communication, producing consistent results, advocating for the team when appropriate, and offering expertise to improve processes, systems, and the organization.
25. Other duties may be assigned.

JOB REQUIREMENTS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skills, and abilities required.

1. Education & Experience Requirements
 - A. ~~College degree with a major~~ Bachelor's Degree in Chemistry, or a related professional field.
 - A. ~~Two, and two (2) years of full-time, related professional experience; OR a minimum of six (6) years of related education and/or full-time, verifiable professional~~ experience in a chemical and/or bacteriologic testing laboratory.
 - B. Master's of Science in Chemistry or a related field degree preferred.
2. License Requirements
 - A. ~~Must possess~~ Possess and maintain a valid Minnesota Class D driver's license or equivalent privilege.
3. Knowledge Requirements
 - A. ~~Extensive~~ Knowledge of water chemistry.

- ~~B. Extensive knowledge of safe and effective best practices in laboratory practice and procedure.~~
- ~~C. Extensive knowledge of chemistry and bacteriology and related laboratory analysis procedures.~~
- ~~A. D. Extensive knowledge of operations, including requirements under NELAC/MNELAP.~~
- ~~B. Knowledge of study design, statistical analysis, and interpretation of data.~~
- ~~Thorough knowledge of the drinking water treatment process for certification as a certified environmental lab by the MDH.~~
- ~~A.C. E. Knowledge of the Safe Water Drinking Act and amendments as they apply to the City of Duluth's surface water treatment facility plant and applicable chemistry.~~
- ~~D. F. Knowledge of laboratory documentation and reporting, including regulatory reporting requirements.~~
- ~~E. Knowledge of SWTR, LCR/LCRR/LCRI and other applicable drinking water regulations.~~
- ~~F. Knowledge of computerized information systems standard laboratory and chemical safety.~~
- ~~B.G. Monitor work for compliance with established methods, guidelines, standards and spreadsheets/procedures.~~
- ~~H. G. Review work of team members for completeness and quality, and provide feedback as needed.~~
- I. Knowledge of problem-solving and conflict-resolution techniques.
- J. Knowledge of applicable safety requirements.
- K. Knowledge of, or the ability to learn, City policies and procedures.
- L. Knowledge of federal, state, and local laws, statutes, regulations, codes, and standards related to the area of responsibility.
- ~~C.M. Knowledge of effective supervisory principles/leadership and personnel practices.~~
- ~~H. Knowledge of applicable labor agreements.~~

4. Skill Requirements

- A. ~~A. Skill in the safe and recommended use of laboratory equipment to determine the physical, chemical, and bacteriologic components of water.~~
- B. ~~B. Skill in study design and data analysis.~~
- C. Skill in the operation of office equipment including, but not limited to, general computer systems, job required software applications, the internet, and modern office equipment.
- D. Skill in managing one's own time and the time of others.
- E. Skill in completing assignments accurately and with attention to detail.
- F. Skill in using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

5. Ability Requirements

- ~~A. Ability to attend work on a regular basis in accordance with a pre-determined schedule.~~
- A. ~~B. Ability to perform a variety of laboratory tests, analyses, and sampling duties in the field.~~
- B. ~~C. Ability to understand and interpret laboratory test results.~~
- C. ~~D. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.~~
- ~~C-D. Ability to communicate and interact effectively across multiple media with members of the public.~~

1. Physical Ability Requirements

- E. ~~A. Ability to lift/communicate effectively both orally and transport laboratory samples in writing.~~
- ~~D-F. Ability to recognize, analyze, and equipment weighing up to 25 pounds solve a variety of problems.~~
- G. ~~B. Ability to transport oneself/organize and prioritize work while meeting multiple deadlines.~~
- H. ~~Ability to, from, and handle difficult and stressful situations with professional composure.~~

- I. Ability to work successfully as a member of a team and independently with minimal supervision.
- J. Ability to train and lead others.
- K. Ability to interpret and apply laws, contracts, regulations, policies, and procedures.
- L. Ability to enforce safety rules and regulations.
- M. Ability to maintain confidential information.
- N. Ability to demonstrate dependability, responsibility, and consistency in job performance.
- O. Ability to attend work as scheduled and/or required.

Physical Demands

The work requires some physical exertion such as long periods of standing; walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; recurring lifting of moderately heavy items such as record boxes. The work may require specific, but common, physical characteristics and abilities such as above.

Work Environment

The work environment involves moderate risks or discomforts requiring special safety precautions (e.g., working around various locations within the City of Duluth to collect samples, moving parts, carts, or machines, or with contagious diseases or irritant chemicals). Employees may be required to use protective clothing or gear such as masks, gowns, coats, boots, goggles, gloves, or shields.

HR: ±	€	Union: Basic	EEOC: Technicians	CSB: 06/05/2012	Class No: 3123
WC: 20	75	Pay: 32	EEOF: Utilities/Transportation	CC: 06/25/2012	Resolution: 12-0316R