

**DEPARTMENT:** ALL APPLICABLE  
**CLASSIFICATION:** COMPETITIVE  
**APPROVED:** JULY 26, 2018

**SANITARY CHEMIST**

**DISTINGUISHING FEATURES OF THE CLASS:** The work involves responsibility for maintaining required environmental and sanitary standards in the treatment of water and/or wastewater and for the determination of plant chemical treatment procedures which will produce the most efficient and effective results within plant design limitations. The incumbent is designated as the technical director for the ELAP certified laboratory and is responsible for ensuring that all the laboratory, industrial pre-treatment programs, and safety programs comply with all regulatory requirements. The work is performed under the general supervision of the Chief Operator, Administrative Director or Superintendent with considerable latitude permitted for the exercise of independent judgment in carrying out the technical aspects of the work. The incumbent supervises and participates in the physical, chemical, and bacteriological examination of water and/or wastewater. Supervision may be exercised over the activities of subordinate laboratory personnel. Does related work as required.

**TYPICAL WORK ACTIVITIES:**

1. Serves as certified technical laboratory director and ensures that the laboratory adheres to all applicable regulations in order to maintain certification;
2. Plans, supervises, and participates in the regular chemical, bacteriological and microscopic examination of raw and treated water or wastewater for compliance with regulatory agency requirements and efficient plant operations;
3. Plans, assigns, and reviews the work of subordinate laboratory personnel as assigned;
4. Supervises the operation and maintenance of scientific equipment used in advanced wastewater analysis and operates same;
5. Performs more difficult chemical, bacteriological and microscopic examinations of water and/or wastewater;
6. Instructs subordinates in proper laboratory procedures and in the care and use of laboratory equipment;
7. Reviews, analyzes, and interprets technical data and reports submitted by subordinates;
8. Oversees the analytical program, tests, and develops appropriate improvements;
9. Ensures the acceptable chemical and biological oxygen demand levels of plant effluent;
  - a. Establishes and implements sample collection locations as appropriate;
10. Supervises the calibration, operation, maintenance and repair of laboratory and automatic sampling equipment;
11. Conducts research and special studies to increase plant efficiency and to obtain improved results;
12. Confers regularly with the Chief Operator regarding ongoing operations and problems encountered;
13. Keeps informed on the latest developments in sanitary chemistry and microbiology by the study of professional literature;
14. Controls inventory of laboratory materials and supplies, requisitions needed supplies, and prepares budgetary requests for laboratory operation and for chemical supplies required for treatment process;
15. Maintains accurate records, provides plant analytical data, and assists the Chief Operator and Administrative Director or Superintendent in submitting required reports to Federal, State, and local agencies to ensure plant compliance with permit requirements;
16. Maintains quality control of all laboratory procedures according to Federal and State regulatory agency guidelines;
17. Confers with governmental officials, industry representatives, and other interested parties in regard to water and/or wastewater treatment matters;
18. Attends laboratory related courses, workshops, seminars, etc., and participates in in-service training of plant personnel;
19. Supervises the Industrial Pre-Treatment Program including sample collection, laboratory analysis of samples, inspection of sampling sites, preparation of reports, addressing violations, communication with industrial users, and the issuance, modification, and renewal of industrial discharge permits;
20. Maintains and implements safety programs in accordance with all applicable regulations to ensure that employees are properly trained and that they meet and adhere to all requirements;
21. Supervises and monitors the Plant's EPA waste chemical program.

**CONTINUED**

## SANITARY CHEMIST CONTINUED

### **FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

Thorough knowledge of modern laboratory principles, practices, techniques, terminology, equipment and safety precautions; thorough knowledge of the modern practices, techniques, and equipment used in the physical, chemical and bacteriological analysis of water and wastewater; a high degree of technical skill in the operation and care of modern laboratory equipment and apparatus; ability to plan for, train and supervise others in the methodology of sanitary chemistry procedures; thoroughness, accuracy; physical condition commensurate with the demands of the position.

### **MINIMUM QUALIFICATIONS:**

**Candidates must meet all of the following requirements:**

1. Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with a Bachelors degree in chemical, environmental, physical or biological sciences or engineering; **and**
2. Completed at least twenty-four (24) semester hours of chemistry; **and**
3. Completed at least sixteen (16) semester hours in the biological sciences, including at least one course having microbiology as a major component (required for Niagara County Sewer District only); **and**
4. Two (2) years of experience in sanitary chemistry or in performing technical analysis in an environmental laboratory including tests involving wastewater and/or drinking water analysis.