

**NOTICE OF PROPOSED CLASSIFICATION ACTIONS BY  
THE HUMAN RESOURCES DIRECTOR**

The following actions are being posted in accordance with Civil Service Rule 109. In the absence of a protest addressed to the Human Resources Director, the proposed changes will become final seven (7) calendar days from the posting date.

**Posting No:** 45  
**Fiscal Year:** 2016/2017  
**Posted Date:** 04/17/2017  
**Reposted Date:** N/A

**AMEND THE FOLLOWING JOB SPECIFICATION(S):**  
*(Job specification(s) attached.)*

Item #	Job Code	Title
1	2482	Water Quality Technician III

**Protests on an item should be addressed to the Human Resources Director** and can be submitted by mail to the City and County of San Francisco, Department of Human Resources, 1 South Van Ness Ave, 4th Floor, San Francisco, CA 94103 or by email to [DHR.ClassificationActionPostings@sfgov.org](mailto:DHR.ClassificationActionPostings@sfgov.org). All protests must be received in writing no later than close of business seven (7) calendar days from the posting date, and must include the posting and item number(s), the basis on which the protest is submitted and identify the affected parties.

**For additional information regarding this proposed classification action**, please contact Stephen Fu, Management Assistant, at (415) 701-5680 or by email at [Stephen.Fu@sfgov.org](mailto:Stephen.Fu@sfgov.org).

Copies of this notice may be obtained from the Department of Human Resources or from the website at: <http://sfdhr.org/index.aspx?page=109>. Copies of Civil Service Rule 109 may be obtained from the Department of Human Resources, the office of the Civil Service Commission at 25 Van Ness Ave, Suite 720, San Francisco, CA 94102 or from the website at: <http://www.sfgov3.org/index.aspx?page=328>.

**cc:** All Employee Organizations  
All Departmental Personnel Officers  
DHR – Class and Comp Unit  
DHR – Client Services Unit  
DHR – Employee Relations Unit  
DHR – Recruitment and Assessment Unit  
DHR – Client Services Operations  
Micki Callahan, DHR  
Michael Brown, CSC  
Sandra Eng, CSC  
Christopher Colandene, SFERS  
Theresa Kao, Controller/ Budget Division  
E-File

CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF HUMAN RESOURCES

Title: Water Quality Technician III  
Job Code: 2482

**DEFINITION**

Under general supervision performs increasingly complex laboratory, field monitoring, and related duties to evaluate water and wastewater treatment plant operations and to determine industrial discharge compliance with pretreatment and source control standards.;

In the laboratory, conducts chemical and microbiological analyses; ~~assists in the training of laboratory technicians to conduct analyses according to standard protocols; conducts special studies and operates advanced analytical instrumentation; keeps detailed and accurate records; prepares comprehensive data summaries and reports; evaluates sample data conformance with quality assurance standards; assists water quality chemists as necessary to achieve the goals of the laboratory.~~

In the field, ~~works independently and in coordination with inspectors and engineers on special projects to investigate~~ and identify ies sources of water pollution quality issues.; conducts studies to evaluate efficacy of sampling regimens; provides instructions and training to staff in sampling procedures and techniques, field documentation, interpretation of regulatory requirements, and field quality assurance practices; tests, operates and maintains field monitoring and related equipment; keeps detailed and accurate records; prepares comprehensive data summaries and reports; evaluates conformance of sampling procedures to quality assurance standards; assists inspectors and engineers to achieve goals of the field monitoring and field services sections.

**DISTINGUISHING FEATURES**

2482 Water Quality Technician III functions as a senior technician and a lead person worker in this job code the Water Quality Technician series. It is distinguished from the 2481 Water Quality Technician in that the prior performs more complex and technical work assigned to the unit. Incumbents in this class work under general supervision and take on lead functions in the laboratory and the field. Operates advanced laboratory instruments such as gas chromatographs, atomic absorption and atomic emission spectrometers. Prepares written reports and data summaries. Responsible for special projects in the laboratory and the field. Assures that all field monitoring and related equipment is operational, and readily available for immediate use. Provides technical training and supervision to entry-level or journey-level technicians.

**SUPERVISION EXERCISED**

**CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF HUMAN RESOURCES**

**Title: Water Quality Technician III  
Job Code: 2482**

~~Provides technical supervision to~~ **Serves as a lead worker over** entry-level or journey-level technicians, ~~but does not assign, direct and/or evaluate the work of technical personnel.~~

**EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES**

*According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to this job code/class and are not intended to be an inclusive list.*

Laboratory

1. Performs the more complex physical, chemical and microbiological laboratory analyses of drinking and wastewater samples and other materials as necessary. Prepares reports evaluating treatment plant performance, distributes data summaries to laboratory clients, works with laboratory clients to provide specialized services.
2. Prepares samples for the analysis of trace elements using filtration and acid digestion techniques, operates complex inorganic chemical instrumentation under close supervision; assists inorganic section chemists to complete analyses within client stipulated completion deadlines.
3. Prepares samples for the analysis of trace organic constituents using solvent extraction, evaporation and filtration techniques; operates complex organic chemical instrumentation under direct supervision; assists organic section chemists to complete analyses within client stipulated completion deadlines.
4. Conducts fee constituent analyses [BOD, TSS, and Oil and Grease] as necessary on samples of industrial discharges to the sewer system collected by the source control and pretreatment field section. Conducts various physical and chemical analyses to determine the effectiveness of water or wastewater treatment plant operation as directed.
5. Assists microbiologists as necessary to conduct coliform analyses on water, wastewater and seawater samples. Prepares reagents sterilizes glassware, materials and equipment, filters samples, uses sterile technique to minimize contamination, records and enters data as appropriate.
6. Receives samples from the Laboratory sample receiving section, creates batches, performs analyses according to standard EPA protocols, enters data generated via analysis, submits data for review to Senior Chemists, returns samples for archiving as necessary to the sample

**CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF HUMAN RESOURCES**

**Title: Water Quality Technician III  
Job Code: 2482**

receiving section.

7. Conducts analyses in accordance with established QA/QC protocols, records accuracy and precision measurements, evaluates contamination through blank analyses, works with QA/QC section to improve technique.

8. Conducts analyses following all laboratory safe practices, wears personnel protective equipment as required; provides guidance to less experienced personnel on the use of safe laboratory practices; works with Laboratory safety section to create a safe and healthy working environment.

9. Collects samples from various sources including drinking water reservoirs, transmission lines, water and wastewater treatment plants, wastewater collection systems, beaches, marine and estuarine waterbodies using approved procedures.

10. Assists other analysts in maintaining an adequate inventory of laboratory supplies and materials; may be required to clean, calibrate and otherwise maintain delicate laboratory instruments.

11. May be required to work independently on weekends and holidays to conduct analyses to meet client stipulated turnaround time for various constituents; and performs related duties and responsibilities as assigned.

**Field Services**

1. Plans, schedules, and conducts equipment maintenance and repair program.

2. Under direction of project manager schedules activities and provides technical supervision, training and general assistance to special project work crews.

3. Performs monthly field equipment calibration checks; prepares standard solutions for calibrating colorimeters, turbidimeters, and pH meters.

4. Calibrates field equipment using specialized laboratory instruments, such as 2100ANT Turbidimeter, DR2000 spectrophotometer, and Microprocessor Ionanalyzer/90.

5. Provides training and technical supervision to entry and journey level technicians. Follows

**CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF HUMAN RESOURCES**

**Title: Water Quality Technician III  
Job Code: 2482**

safe practices in performing all duties.

6. Provides certified testing of backflow devices.
7. Available for on-call fire response duty as certified specialist.
8. Interprets and performs according to existing methods, procedures, rules, and regulations pertaining to customer water services and applicable water conservation programs.
9. Maintains appropriate inventory of materials, equipment, and supplies to support the field services section in performing its assigned duties.
10. Conducts special projects, such as writing the sample manual, integrating sampling and backflow information into LIMS, generating computerized sample labeling and custody sheets, to better organize activities of field services section.
11. Conducts special sampling in remote areas of the watershed.
12. Performs related duties and responsibilities as assigned.

**Field Monitoring:**

1. Provides instructions and training to staff in the procedures and techniques of sampling, field documentation, field quality assurance practices, and interpretation of requirements and regulations.
2. Oversees and schedules the maintenance and calibration of all portable field equipment and instrumentation. Operates all field monitoring equipment. Performs diagnostics of inoperative equipment.
3. Applies ultrasonic, bubbler, area /velocity, and closed pipe flow meter techniques to various flow monitoring projects.
4. Analyzes flow monitoring data using Windows Vision and Insight software.
5. Under general supervision, generates written sampling plans to meet permit monitoring requirements.

**CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF HUMAN RESOURCES**

**Title: Water Quality Technician III  
Job Code: 2482**

6. Organizes and schedules vehicle maintenance and automotive repair.
7. Under general supervision, investigates and prepares incident reports on complaints received from the public or other agencies; takes appropriate follow-up action. Investigates reports of illegal discharge of toxic substances into the sewer.
8. Evaluates field sampling and documentation for conformance with quality assurance standards. Conducts field analyses in accordance with established QA/QC protocols; conducts quality assurance audits and prepares reports and summaries as required. Records accuracy and precision measurements. Works with QA/QC section to improve techniques; and performs related duties and responsibilities as assigned.

**KNOWLEDGE, SKILLS, AND ABILITIES**

Knowledge of: Laboratory: The analytical procedures of chemical evaluation of water and wastewater; general inorganic and organic chemistry; good laboratory practices; safe laboratory practices. Field Services: All equipment and instruments used in field monitoring within WQB field services; all standard operating and safety procedures. Field Monitoring: All equipment and instruments used in field monitoring within SPEAC field monitoring; all standard operating and safety procedures.

Ability and Skill to: Laboratory: Learn new procedures and protocols for the analysis of samples; to work independently; demonstrate good laboratory technique; organize work; train and technically supervise less experienced technical personnel in established laboratory procedures; utilize effective oral and written communication; interact with diverse workforce of technical and non-technical personnel, managers, and public constituents. Field Services and Field Monitoring: Read, study, and understand technical manuals. Learn new regulations, procedures and protocols for field sampling, testing, and collection; work independently; demonstrate good field technique; organize work; train and technically supervise less experienced technical personnel in established field procedures; utilize effective oral and written communication; interact with diverse workforce of technical and non-technical personnel, managers, and public constituents; and handle, operate and maintain laboratory materials and equipment.

**MINIMUM QUALIFICATIONS**

*These minimum qualifications establish the education, training, experience, special skills and/or license(s) which are required for employment in the classification. Please note, additional qualifications (i.e., special conditions) may apply to a particular position and will be stated on the exam/job announcement.*

CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF HUMAN RESOURCES

Title: Water Quality Technician III  
Job Code: 2482

Education:

Completion of a high school diploma or its equivalent (GED or High School Proficiency Examination)

Experience:

Five (5) Six years of verifiable experience performing water quality duties similar to those in class 2481 Water Quality Technician in a water or wastewater laboratory, ~~conducting analysis as described under important and essential duties or: Six years of verifiable experience working in source control monitoring or a wastewater treatment facility, performing duties as described under important and essential duties or: Six years of verifiable experience working in or a water collection, or distribution system, s or in a water treatment facility, performing duties as described under important and essential duties.~~

License and Certification:

Possession of a valid California Driver License

Substitution:

Possession of an associate of science degree from an accredited college or university in biology, chemistry, microbiology, ~~engineering,~~ or a related field can substitute for up to two (2) years of the required experience.

**SUPPLEMENTAL INFORMATION**

Some positions require possession of one or more of the following:

Water Distribution Operator (D1) Certificate

Backflow Tester certification

CWEA Grade I Industrial Waste Collection or Inspection Certificate

~~For Water Quality Technician III within PUC/WQB/Laboratories, possession of California Water Environment Agency (CWEA) Grade I Laboratory Analyst Certificate is required. Possession of CWEA Grade II or higher is desirable.~~

~~For Water Quality Technician III, within PUC/WQB Field Services possession of Backflow Tester certification is required. Possession of Fire Response Specialist certification is desirable.~~

~~For Water Quality Technician III, within PUC/SPEAC possession of CWEA Grade I Industrial Waste Collection or Inspection Certificate is required. Possession of Grade II or higher is desirable.~~

~~Candidates without required certification will be allowed to obtain it within 2 years of~~

CITY AND COUNTY OF SAN FRANCISCO  
DEPARTMENT OF HUMAN RESOURCES

Title: Water Quality Technician III  
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~~appointment as Water Quality Technician III.~~

PROMOTIVE LINES

From: 2481 Water Quality Technician

ORIGINATION DATE: 12/04/00

AMENDED DATE: 04/XX/17

REASON FOR AMENDMENT: *To accurately reflect the current tasks, knowledge, skills & abilities, and minimum qualifications.*

BUSINESS UNIT(S): COMMN