

CHEMIST

Recruitment #1908-1901-001

List Type	Original
Requesting Department	HEALTH-LABORATORIES
Open Date	8/15/2019 4:35:00 PM
Filing Deadline	9/12/2019 11:59:00 PM
HR Analyst	Nola Nelson

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INTRODUCTION

Located on the western shore of Lake Michigan, Milwaukee is an urban hub bursting with energy. Milwaukee provides a casual sophistication – big city appeal without the big-city hassles. We are accessible and affordable, and our residents are welcoming. Milwaukee has evolved through the years, bringing together its unsurpassed old world charm with a breathtaking Art Museum, top-flight arts and cultural attractions, professional sports, lakefront festivals, recreational opportunities and great restaurants.

PURPOSE

Under the direction of Deputy Laboratory Director, the Chemist independently performs analysis for lead in dust wipes, paints, soil, water and blood for all Milwaukee Health Department (MHD) programs, including Childhood Lead Poisoning Prevention, Environmental Lead, Food and Water Control, Asbestos Control, and Industrial Hygiene.



ESSENTIAL FUNCTIONS

Environmental Lead Chemistry:

- Test household dust wipes, paint chips, soil, and any other material for lead content using Flame Atomic Absorption (AA) spectrophotometry.

Childhood Lead Poisoning Prevention:

- Analyze whole blood specimens for lead concentration using the Graphite Furnace Atomic Absorption (AA) spectrometer.
- Measure the hematocrit and hemoglobin concentration in whole blood specimens.
- Test household water and other miscellaneous samples for lead content (e.g., toys, dishes, etc).

Allergen and Biological Toxin Testing:

- Conduct household and environmental sample processing utilizing Enzyme-linked Immunosorbent Assay (ELISA) for allergens analysis and dipstick and ELISA for testing water samples for algal toxins.
- Assist with LIMS entry and test result reporting.

Environmental Chemistry:

- Analyze unknown chemicals and powders using infra-red (IR) spectroscopy and microscopy.
- Identify various forms of asbestos in bulk solid samples using polarized light microscopy.
- Analyze drinking water, wastewater, organic wastes, and other complex matrices and organic pollutants using gas chromatography-mass spectrometry (GC-MS) and liquid chromatography-mass spectrometry (LC-MS).
- Analyze biological toxins (e.g., Ricin, Botulinum and Staphylococcus enterotoxins) using time-resolved Fluorescence (TRF) techniques.

Food and Water Control:

- Measure the fat content of ground beef and the salt content in smoked fish samples by ion chromatography.
- Measure the conductivity and resistivity of laboratory water.
- Measure inorganic chemicals to support relevant City departments and programs. These services include but are not limited to:
 - environmental testing to evaluate the impact on runoff to rivers and lakes and
 - testing associated with the Safe Drinking Water Act.
- Measure ammonia, phosphate and turbidity of lake and river waters.

General duties:

- Maintain accurate records to assure quality assurance (QA) and quality control (QC) for all analytical procedures.
- Perform the necessary support functions to ensure the efficient operation of the laboratory, including washing, sterilizing and preparing sample bottles and glassware.
- Assist in developing, validating and maintaining chemistry analytical techniques.
- Perform routine maintenance and troubleshooting of analytical instrumentation and equipment.
- Work closely with supervisory staff on method selection, development, and improvement projects.
- Perform data entry in the Laboratory Information Management System (LIMS).
- Participate in laboratory safety programs.
- Monitor laboratory supply inventories and expendables.
- Periodically attend meetings, trainings, and conferences related to work.

Reasonable accommodations requested by qualified individuals with disabilities will be made in accordance with the Americans with Disabilities Act (ADA) of 1990, as amended by the Americans with Disabilities Act Amendments Act (ADAAA) of 2008.

CONDITIONS OF EMPLOYMENT

- Must have the physical ability to differentiate and quantify colors and odor.
- Need to wear surgical mask and/or particulate respirator (N95 or higher), have a respirator fit test and TB skin test annually.
- Travel outside of the City of Milwaukee, including occasional overnight travel for the purpose of attending conferences, workshops and trainings.
- Participate in a 24-hour emergency on-call rotation schedule (including weekends).
- Candidates are required to successfully pass a thorough background check.

MINIMUM REQUIREMENTS

1. Bachelor's degree in physical chemistry, environmental chemistry, analytical chemistry, organic chemistry, biochemistry, toxicology, forensic science, or a related field from an accredited college or university.
2. Two years of relevant experience as a professional chemist, such as environmental chemistry laboratory experience, in an academic, public health, or commercial setting.

3. Valid driver's license at time of appointment and throughout employment.

Equivalent combinations of education and experience may be considered.

IMPORTANT NOTE: To receive credit for college, transcripts are required and must be received by the application period closing date. College transcripts should be attached to your online application. Applications without transcripts attached will be considered incomplete and will be rejected. Your transcript must be legible and include the following information: the university or college name, your name, the degree completed (if applicable) and the date the degree was completed. Student copies are acceptable.

DESIRABLE QUALIFICATIONS

- Master's Degree in chemistry, analytical chemistry, organic chemistry, biochemistry, biophysical chemistry, geochemistry, environmental chemistry, or a closely related field.

KNOWLEDGES, SKILLS, ABILITIES & OTHER CHARACTERISTICS

- Knowledge of public health principles and practices.
- Commitment to public safety and disease prevention.
- Knowledge of chemistry (i.e., the chemical composition, structure, and properties of substances); chemical processes, and safety (i.e., safety datasheet uses, interactions, danger signs, production techniques, and disposal of chemicals).
- Knowledge of and ability to safely use the following methods for chemical analysis:
 - Flame AA
 - Graphite Furnace AA
 - Ion chromatography
 - Gas Chromatograph mass spectrometry (GC-MS) and liquid chromatograph mass spectrometry (LC-MS)
 - Time-Resolved Fluorescence (TRF)
 - Fourier-transform infrared spectroscopy (FTIR)
 - Inductively coupled plasma mass spectrometry (ICP-MS)
- Knowledge of and ability to safely use the following types of equipment for chemical analysis:
 - Flame ionization detectors (FIDs)
 - Electron capture detectors (ECDs)
 - Microplate readers
 - Nucleic acid sequencers (optional)
 - Microscopes

- Centrifuge machines
- Scales
- Chemical fume hoods
- Ability to interpret mass spectral data.
- Knowledge of mathematical and statistical concepts.
- Ability to read and interpret professional journals, technical documentation, and laws and regulations.
- Ability to write reports, correspondence, and procedures.
- Analytical, problem-solving, and research skills.
- Proficiency with Microsoft Access, Excel, Word, the Internet, and scientific software.
- Interpersonal skills to maintain effective, positive relationships with coworkers, the public and other City departments.
- Ability to work well both independently and as part of a synergistic team.
- Ability to work cooperatively, effectively, and fairly with coworkers and citizens whose background may differ from one's own.
- Planning, organizational, and time management skills.
- Ability to meet quality and productivity standards.
- Ability to follow safety and security procedures.
- Ability to follow safety guidelines and policies regarding personal protective equipment and other safety gear.
- Ability to manage resources in a responsible way.
- Ability to maintain confidentiality and perform work in an ethical manner.
- Ability to remain calm during emergency situations.
- Willingness to pursue training and development opportunities to stay abreast of technical advances, regulatory standards, industry issues and public health trends.

CURRENT SALARY

The current salary range (2FN) is \$48,294-\$67,615 annually, and the resident incentive salary range for City of Milwaukee residents is \$49,743-\$69,644 annually. *Appointment above the minimum is possible based upon level of experience and other qualifications and is subject to approval.*

BENEFITS

The City of Milwaukee provides a comprehensive benefit program that includes the following:

- Defined Benefit Pension Plan
- 457 Deferred Compensation Plan
- Health and Dental Insurance

- Comprehensive Wellness Program
- Onsite Clinic Services
- Onsite Employee Assistance Program
- Alternative Work Schedules
- Long Term Disability Insurance
- Group Life Insurance
- Tuition Benefits
- Paid Vacation
- 11 Paid Holidays
- Paid Sick Leave and other paid leaves
- Flexible Spending Arrangement
- Commuter Value Pass

For full details of the benefits offered by the City of Milwaukee, please visit <http://city.milwaukee.gov/Benefits2019>

SELECTION PROCESS

THE SELECTION PROCESS will be job related and will consist of one or more of the following: education and experience evaluation; written, oral, or performance tests, or other assessment methods. The Department of Employee Relations reserves the right to call only the most qualified candidates to oral and performance examinations. Oral examinations may include written exercises. Selection process component weights will be determined by further analysis of the job.

INITIAL FILING DATE - The examination will be held as soon as practical after **Thursday, September 12, 2019**. Receipt of applications may be discontinued at any time after this date without prior notice. However, recruitment may continue until the needs of the City have been met. Qualified applicants will be notified of the date, time, and place of the examination. Unless otherwise required by law, the City of Milwaukee will not provide alternative test administration. The applicant is responsible for attending all phases of the job selection process at the time and place designated by the City of Milwaukee.

ADDITIONAL INFORMATION

APPLICATIONS and further information may be accessed by visiting www.jobaps.com/MIL.

- Applications and transcripts should be submitted no later than the deadline listed above.
- If you would like assistance completing an application, please contact the Department of Employee Relations at (414) 286-3751 or staffinginfo@milwaukee.gov.
- The Department of Employee Relations is located in City Hall, 200 E Wells St, Room 706, Milwaukee, WI 53202.

CONCLUSION

EEO = 206

“The City of Milwaukee values and encourages diversity and is an equal opportunity employer.”