

**MIDDLESEX COUNTY UTILITIES AUTHORITY
JOB OPENING**

JOB TITLE: Assistant Process Control Engineer

DEPARTMENT: WW Administration
LOCATION: Central Treatment Plant
SALARY LEVEL: E-4 (\$52,060.00-\$118,780.00)
REPORTS TO: Process Control Engineer

DIVISION: Wastewater
EXEMPT: Yes
SHIFT: No
REVISED: 3/22/2021

SUMMARY: Assist the Process Control Engineer in evaluating operations and processes of the MCUA wastewater treatment plant to ensure efficient and effective operation by performing the following duties.

ESSENTIAL DUTIES & RESPONSIBILITIES: Include the following and others as assigned.

Review plant operations to ensure compliance with plant discharge limitations.

Assist General and Operations Superintendent with coordination of process changes and sampling activities.

Using laboratory and plant data, prepare correlating operations, monitoring, discharge, emissions, and related reports for submission to regulatory agencies.

Evaluate current plant performance and recommend capital and/or operational improvements.

Review plant capacity to accommodate future growth and recommend additions and/or modifications to the various process trains.

In coordination with Environmental Quality, plan, direct, and evaluate pilot studies for new procedures, processes, and/or equipment applications.

Assist with review and documentation of Treatment Work Approvals.

Advise General Superintendent, in coordination with the Administrator of Environmental Quality, of expected changes in regulatory requirements and their impact on plant operations.

Evaluate capability of plant to comply with existing and future regulatory requirements and recommend necessary changes and/or alternatives.

Assist in training activities and plant tours.

Assist with budget preparations, as assigned.

Prepare and/or review designs, specifications and bid documents for new equipment, services or supplies related to work operations, systems and/or processes.

Analyze data and perform calculations that measure the efficiency and effectiveness of structures, equipment and various processes and systems, and make recommendations to supervisor.

Act as liaison with management and consulting personnel assigned to specific phases of construction projects or equipment upgrades. At the direction of the General and Operations Superintendents, plan and coordinate plant process shutdown and start up activities.

Review plant operations data to measure compliance with plant discharge limitations and permits.

Recommend design process changes or recommend alternative sampling methods.

Evaluate current and past plant performance and generates recommendations for capital and/or operational improvements.

Perform calculations in relation to the plant's and pump stations' capacity to accommodate future growth and design additions and/or modifications to the various process trains.

Research alternative methods of treating wastewater and disposing of sludge-derived products through elimination and/or beneficial reuse, including advanced digestion, reverse osmosis, accelerated biological processes and newer methods.

Comply with and enforce applicable safety and health policies and procedures.

QUALIFICATION 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, skill, and/or ability required.

EDUCATION and/or EXPERIENCE: Bachelor of Science Degree (B.S.) with major coursework in Chemical, Civil or Environmental Engineering or other related science; three (3) years related experience and/or training in a similar size treatment plant; or equivalent combination of education and experience. Knowledge of SCADA, computer controls, Microsoft Office, and data management software.

LANGUAGE SKILLS: Ability to read, analyze, and interpret scientific and technical journals, legal documents and government regulations. Ability to respond to inquiries or concerns from managers, consultants, regulatory agencies, or members of the community. Ability to write reports, business correspondence, and procedure manuals, and draft sketches or drawings. Ability to effectively present information.

MATHEMATICAL SKILLS: Ability to work with mathematical concepts such as probability and statistics, and fundamentals of plane and solid geometry and trigonometry. Ability to calculate figures and amounts such as ratio, proportions, percentages, area, circumference, weight and volume. Ability to apply concepts from algebra and calculus.

REASONING ABILITY: Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

OTHER SKILLS AND ABILITIES: Considerable knowledge of processes and equipment involved in wastewater treatment including chemical, physical, and biological processes. Knowledge of applicable federal, state, and local regulatory requirements. Knowledge of federal and State pollution control laws and appropriate subchapters of the New Jersey Administrative Code (e.g., N.J.A.C. Title 7) pertaining to the regulation of environmental facilities and/or pollution control in assigned area. Knowledge of administrative, financial, and safety practices and procedures involved in successful plant operations. Knowledge of industrial wastes and their effects on treatment processes and equipment. Knowledge of appropriate computer hardware, software, and peripherals to optimize plant capacity and efficiency. Ability to work harmoniously with colleagues, government officials, consulting or contracting personnel and the general public. Ability to collect, investigate, analyze, and interpret significant information and data and to prepare concise, accurate reports and recommendations.

LICENSES: Must possess a valid state of residence Driver's License and meet Authority insurance requirements.

PREFERRED CREDENTIALS: Possession of a S- or C- license issued by the New Jersey Department of Environmental Protection. Designation as Engineer in Training (EIT).

PHYSICAL DEMANDS: While performing the duties of this job, the employee is frequently required to have manual dexterity. The employee is occasionally required to stand; walk; sit; reach with hands and arms; climb or balance; stoop, kneel, crouch, or crawl; talk or hear; and smell. The employee must regularly lift and/or move up to 5 pounds, frequently lift and/or move up to 10 pounds, and occasionally lift and/or move up to 25 or more pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus. Must be able and willing to utilize appropriate respiratory and other safety equipment/PPE required in the performance of duties.

WORK ENVIRONMENT: While performing the duties of this job, the employee occasionally works near moving mechanical parts, in high, precarious places, in outside weather conditions, and is occasionally exposed to wet and/or humid conditions, fumes, noxious odors, dust or airborne particles, industrial strength chemicals, risk of electrical shock, and vibration. The noise level in the work environment is usually moderate.

INSTRUCTIONS TO APPLY FOR THIS POSITION:

Anyone interested in applying for this position should submit a current resume and a letter of interest explaining how the candidate meets the job requirements to **Human Resources Office, Central Administration Building, Room 124, Sayreville** or to **mwwiater@mcua.com**. Employees who are newly hired or accept a new position within the Authority, those who are promoted to a new job classification or have been transferred to a new assignment, and former employees who have been rehired, are classified as Conditional Employees for a period of six (6) months beginning with the first day on the new job. Employees are eligible to apply for a different position within the Authority after they have completed the 6 month period as a Conditional Employee. Any current employee who accepts and begins working in this position

may not be able to return to their old position, or to any other position within the Authority, because of withdrawal or removal from, or inability to perform in this position. Qualified employees are encouraged to apply for posted positions as they occur. The MCUA is an Equal Opportunity Employer (EEO/AA).