

**MIDDLESEX COUNTY UTILITIES AUTHORITY
JOB OPENING**

JOB TITLE: Process Control Engineer

DEPARTMENT: WW Administration
LOCATION: Central Treatment Plant
SALARY LEVEL: E-8 (\$72,430-\$165,170)
REPORTS TO: General Superintendent

DIVISION: Wastewater
EXEMPT: Yes
SHIFT: No
REVISED: 3/23/2022

SUMMARY: Work alongside consulting engineers and other staff to plan, design, construct, test, evaluate, and maintain processes, systems, equipment, and structures within the Wastewater Division. Evaluate 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.

Perform more complex field and office engineering work related to the design, maintenance, and construction of structures, equipment, and various processes and systems.

Review, develop, and implement standard operating procedures for proper process operations.

Conduct field inspections of construction projects to assist in managing the Authority's capital assets and overseeing construction progress and schedule.

Review contract drawings and specifications required for public contract bidding for Authority construction projects and equipment upgrades.

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

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

Design process changes or recommend alternative sampling methods to supervisor.

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

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

Oversee pilot studies for new procedures, processes, and/or equipment applications by reviewing plans and evaluating outcomes.

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

Assist in training activities.

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

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

SUPERVISORY RESPONSIBILITIES: When assigned, supervise employee(s) involved in Process Control Engineering activities in the MCUA central treatment plant. Provide overall direction, coordination, and evaluation of this unit. Carry out supervisory responsibilities in accordance with Authority policies and applicable laws. Responsibilities may include interviewing, hiring, and training employees; planning, assigning, and directing work; appraising performance; rewarding and disciplining employees; addressing complaints and resolving problems.

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, Mechanical, or Environmental Engineering or other related science; seven (7) years related experience and/or training of which two (2) must be in a supervisory or lead capacity 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: Thorough knowledge of processes and equipment involved in wastewater treatment including chemical, physical, and biological processes. Ability to handle multiple and simultaneous projects with variable complexities under constrained schedules and to

lead, manage, and prioritize multi-discipline assignments. Considerable 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. Thorough 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 registered State of New Jersey Professional Engineer (PE).

PHYSICAL DEMANDS: While performing the duties of this job, the employee is frequently required 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 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. 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).