Jurisdiction: Oneida County
Jurisdictional Class: Competitive
Revised: 9/25/96

LABORATORY TECHNICIAN (WASTEWATER TREATMENT)

DISTINGUISHING FEATURES OF THE CLASS: This position exists in the County wastewater treatment plant and involves responsibility for physical, chemical, bacteriological and microscopic examination and analysis of raw and treated wastewater and sludge. The incumbent is responsible for performing all the standard laboratory tests and procedures required for control of the treatment process and necessary stream or industrial waste surveys. The work is performed under supervision of the Sanitary Chemist, with leeway allowed for exercise of independent judgement in carrying out details of the work. Super-vision over the work of others is not a responsibility of employees in this class. However, an incumbent may recommend process adjustments to plant shift personnel. Does related work as required.

TYPICAL WORK ACTIVITIES: (Illustrative Only)

Performs a wide variety of chemical tests on sludge, industrial waste and wastewater found in lakes, streams, and treatment plants, such as ammonia nitrogen analyses, organic and total Kjeldahl nitrogen analyses, nitrite and nitrate determinations, alkalinity analysis, sulfate analysis, chloride analysis, phosphate analysis, metals determinations, suspended, total, and volatile solids determinations to determine effects upon plant operations and quality of receiving waters, including field sampling and field testing;

Follows established methodologies for a Laboratory Quality Control Program including calibration of equipment, preparation of Chemical Standard and preparation and testing of spiked and replicate samples;

Operates a variety of scientific equipment used in analysis, such as spectrophotometers, titralyzers, microscopes, pH meters, dissolved oxygen meters, conductivity meters, balances, incubators, constant temperature baths and autoclaves;

Records and tabulates the results of tests and data for use by superiors;

Maintains laboratory and chemical storage facilities in a safe, clean orderly fashion;

Performs microbiological examinations on activated sludge and plant effluent;

Prepares and standardizes required reagents, bacteriological media and solutions necessary for chemical and bacteriological tests and analyses;

Reviews, analyzes and interprets technical data for purposes of composing technical reports;

Recommends process adjustments such as adjusting air flow to the activated sludge process, adjusting the wasting rate of the secondary system to ensure clean effluents, adjusting sludge conditioning chemicals and adjusting chlorine feed rate for effluent disinfection;

Participates in training of plant personnel regarding laboratory procedures;

Attends laboratory related courses and seminars to keep abreast of developments in the field;

May direct shift personnel in performance of laboratory testing.

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FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS: Working knowledge of modern technical laboratory techniques, equipment, terminology and safety precautions used in the analysis of water, wastewater and sludge; working knowledge of the principles of environmental health, as they relate to wastewater treatment; working knowledge of the practice of analytical chemistry and microbiology, as they relate to wastewater analysis and treatment; skill in the operation and care of laboratory equipment and apparatus, and use and storage of chemicals; ability to direct operating personnel in collection of samples and performance of simple tests; ability to understand and carry out technical oral and written instructions; ability to maintain technical records and reports; accuracy.

MINIMUM QUALIFICATIONS: Graduation from a regionally accredited or New York State registered college or university with an Associate's Degree in laboratory technology, engineering, civil, chemical, mechanical, electrical, biological or physical sciences or a closely related field.

SPECIAL REQUIREMENT: Certain assignments made to employees in this class will require access to transportation to meet field work requirements in a timely and efficient manner.