

WASTEWATER TREATMENT PLANT MAINTENANCE SPECIALIST

General Statement of Duties

Performs difficult technical and skilled work in the operation, maintenance, and repair of machinery and equipment at a wastewater treatment plant.

Distinguishing Features of the Class

An employee in this class performs journey level electrical and maintenance work in the operation, maintenance, and repair of large and specialized equipment and machinery at a wastewater treatment plant. Work involves responsibility for maintaining and repairing communications equipment, motors, pumps, and other equipment involving electrical, instrumentation, and mechanical work. Work also requires a knowledge of trade skills in mechanical and plumbing areas. The employee is subject to hazards associated with wastewater and mechanical operations including working in both inside and outside environments, in extreme hot and cold weather, and exposure to various hazards such as loud noises, vibrations, moving mechanical parts, electrical current, working on scaffolding, and exposure to chemicals fumes, odors, dusts, mists, gases, poor ventilation, and oils. Work around raw sewage is also subject to the final OSHA standards on blood borne pathogens. Work is performed under general supervision of the Wastewater Treatment Plants Director. Work is evaluated in terms of effectiveness in returning equipment to proper operating conditions within given time schedules, and overall effectiveness of system performance.

Duties and Responsibilities

Essential Duties and Tasks

Troubleshoots, diagnoses, and repairs parts or equipment failures and problems; performs repairs on electrical and instrumentation systems, and mechanical maintenance and repairs; regularly checks and repairs plant communication equipment, pumps, motors and other electrical and mechanical equipment; calibrates instruments.

Uses volt meter, heat gun, calibration instruments, and other power and hand tools used in the work.

Plans and participates in regular preventive maintenance inspections such as checking and lubricating bearings, gear boxes, checking and replacing filters, and other preventive maintenance activities.

Maintains and services electrical generators for emergency power sources during outages; cleans, replaces and repairs gauges, engines, and other equipment.

Maintains and repairs pumps, motors, and hydraulic systems, and other equipment.

Participates in grounds, lawn, and facility maintenance; mows grass, uses weed eater, paints and does repair work on plant facilities; cleans building and plant areas.

Contacts suppliers for pricing and orders parts and supplies needed for repairs.

Participates in operation of spray irrigation system as needed.

Maintains records of work activities.

Additional Job Duties

Performs related duties as required.

Recruitment and Selection Guidelines

Knowledges, Skills, and Abilities

Considerable knowledge of the operations and operating characteristics wastewater treatment plants.

Considerable knowledge of electrical and instrumentation system maintenance and repair of
Wastewater Treatment Plant Maintenance Specialist
Page 2

related equipment.

Considerable knowledge of the installation, repair, and maintenance of the mechanical, plumbing, and hydraulic components of treatment plants.

Considerable knowledge of the occupational hazards and necessary safety precautions of the work.

Knowledge of the operation and application of personal computers to the operation and maintenance of related equipment.

Knowledge of electrical wiring and parts and ability to diagnose and replace parts.

Ability to detect malfunctioning of pumps and motors by observation, sound, and chart readings, and to take proper remedial action.

Ability to diagnose electrical and electronic problems.

Ability to read and follow schematic drawings, blueprints, and written and oral instructions.

Ability to establish and maintain effective working relationships with co-workers, supervisor, contractors, and the general public.

Ability to prepare and maintain accurate records and prepare reports.

Physical Requirements

Must be able to physically perform the basic life operational functions of climbing, balancing, stooping, kneeling, crouching, crawling, reaching, standing, walking, pushing, pulling, lifting, fingering, grasping, feeling, talking, hearing, and repetitive motions.

Must be able to perform heavy work exerting up to 100 pounds of force occasionally; and/or up to 50 pounds of force frequently; and/or up to 20 pounds of force constantly.

Must possess the visual acuity to operate machines and equipment including close inspection of moving and small parts, perform mechanical work, use measurement devices, perform assembly and fabrication of parts, prepare maintenance records and operate a computer terminal.

Desirable Education and Experience

Graduation from high school supplemented by courses in mechanical or plumbing trades, and considerable mechanical maintenance and repair experience including pump, electrical and electronic repairs; or an equivalent combination of education and experience.

Special Requirements

Possession of a valid North Carolina driver's license.

Possession of a North Carolina Grade II Wastewater Treatment Operator certification.

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