

**CLARK COUNTY SCHOOL DISTRICT
HUMAN RESOURCES DIVISION**

WATER TREATMENT TECHNICIAN

Class Code: 7230

Job Family: Skilled Trades/Technicians

Classification: Support Staff

Terms of Employment: Pay Grade 54 on the Support Staff Salary Schedule

FLSA STATUS: NON-EXEMPT

POSITION SUMMARY:

Under general supervision, monitors, analyzes, and tests water systems; performs and implements preventive maintenance program to all types of building, heating, ventilation, air conditioning, and refrigeration (HVACR), and hydronic systems and equipment.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

This list of Essential Duties and Responsibilities is not exhaustive and may be supplemented.

1. Performs chemical tests on water samples obtained from cooling towers, chiller condensers, boilers, and open and closed loop heating and cooling systems, and related subsystems.
2. Performs chemical tests during cleaning to determine contact time of chemical cleaning agent to prevent premature erosion of system metals.
3. Tests water samples using prescribed procedures and equipment in cooling towers, boilers, and open and closed loop heating and cooling systems checking to ensure that microbiocides, suspended solids, acidity, alkalinity, and other contaminants are within prescribed limits.
4. Calculates cycles of concentrations, solution, and approach temperatures and chemical treatment dosages.
5. Calculates the dosage of and determines which algaecide/biocide to apply to the cooling tower to control and/or eliminate any bacteria, algae, fungi, or biomass growth.
6. Calculates solution temperatures and flow of treatment solutions using test equipment.
7. Calibrates and adjusts automatic water treatment control devices to regulate chemical flows into boilers, cooling towers, and heating and cooling systems to descale and eliminate algae and corrosion.
8. Analyzes chemical test data and performs calibration and adjustments to automatic/manual water treatment control devices to regulate chemical injection and cycles of concentrations in boilers, cooling towers, and heating & cooling systems to prevent scaling, corrosion, pitting, and all microbiological growth.
9. Installs automatic feed and bleed control devices for chemical injections for boilers, cooling towers, and closed loops; includes electric motors, electric wiring, and associated waterlines.
10. Rebuilds sections of cooling towers.
11. Repairs or replaces tubing, fittings, pumps, valves, regulators, controls, fan belts, and pulleys.
12. Chemically or manually cleans cooling towers, condensers or flat plate heat exchangers by determining severity of debris and proper chemical cleaning agent; determines cleaning chemicals to use for closed systems when they become contaminated.
13. Acidizes and rods out condensers and tube bundles to remove scale.
14. Shuts-down and starts-up cooling towers, chillers, boilers, flat plate heat exchanges, and blows-down boilers utilizing prescribed procedures.
15. Identifies and replaces malfunctioning components such as conductivity controller circuit boards, solenoid valves, etc.
16. Performs visible inspections on associated equipment and performs preventive maintenance activities.
17. Ensures that residual levels of chemical inhibitors are within control parameters and that suspended solids, chlorides, calcium, acidity, alkalinity, silica, and other contaminants are within prescribed limits using prescribed procedures for testing.
18. Initiates requests for equipment, chemicals, test kits, and other supplies, as required.
19. Confers with vendors regarding performance and quality of chemical supplies and equipment.

12/01/87

Revised: (08/29/91; 01/03/95; 10/29/96; 09/11/98; 08/28/00; 07/13/03; 07/15/05; 07/12/07; 01/02/09; 05/13/15)

20. Prepares and maintains accurate updated record data such as equipment status, cycles of concentrations, residual content of chemicals, approach temperatures, and water pressures.
21. Responsible for the safe handling and disposal of hazardous waste as they relate to cooling towers, boilers, and water systems.
22. Instructs and/or directs the daily assignments of skilled trades assistants, when assigned.
23. Conforms to safety standards, as prescribed.
24. Performs other tasks related to the position, as assigned.

DISTINGUISHING CHARACTERISTICS:

Involves skilled and technical work requiring substantial judgment and analytical ability related to the functions of proper water treatment of industrial water systems.

KNOWLEDGE, SKILLS, AND ABILITIES (Position Expectation):

1. Knowledge of safe handling practices for hazardous chemicals and waste material.
2. Knowledge of water treatment practices and procedures.
3. Knowledge of chemical cleaning to prevent corroding or damage to tubing or equipment.
4. Ability to develop, learn, and apply operating procedures.
5. Ability to recognize, understand, interpret, and apply all local, state, federal and national codes and regulations including, but not limited to: Occupational Safety and Health Administration (OSHA), Uniform Building Code (UBC), Uniform Mechanical Code (UMC), Uniform Plumbing Code (UPC), Environmental Protection Agency (EPA), etc.
6. Ability to plan and organize work.
7. Ability to safely handle and dispose various types of chemicals in accordance with material safety data sheet (MSDS), federal, state, and local jurisdictional requirements.
8. Ability to operate hand and power tools and equipment.
9. Ability to withstand heights and perform work safely.
10. Ability to perform heavy, strenuous, physical work.
11. Ability to wear prescribed safety equipment.
12. Ability to work cooperatively with employees, vendors, and the public.
13. Ability to recognize and report hazards and apply safe work methods.
14. Possess physical and mental stamina commensurate with the responsibilities of the position.

POSITION REQUIREMENTS:

Education, Training, and Experience:

1. High school graduation or other equivalent (i.e., General Educational Development (GED), foreign equivalency, etc.).
2. Three (3) years experience in the operation, chemical maintenance, and control of open and closed HVACR industrial and water systems; or,
One (1) year experience in the operation, chemical maintenance, and control of open and closed HVACR industrial and water systems and college core courses in math, chemistry, biology, and water treatment.

Licenses and Certificates:

1. A valid driver's license that allows the applicant/employee to legally operate a motor vehicle in Nevada. License must be maintained for the duration of the assignment.
2. Copy of driving history issued by the Department of Motor Vehicles at time of application or Qualified Selection Pool (QSP) placement and at time of interview prior to final selection.

Preferred Qualifications:

None Specified

DOCUMENT(S) REQUIRED AT TIME OF APPLICATION:

1. High school transcript or other equivalent (i.e., GED, foreign equivalency, etc.).
2. College transcript(s), if applicable.
3. A valid driver's license that allows the applicant/employee to legally operate a motor vehicle in Nevada.
4. Current copy of driving history issued by the Department of Motor Vehicle.
5. Specific documented evidence of training and experience to satisfy qualifications.

EXAMPLES OF ASSIGNED WORK AREAS:

Clark County School District facilities - offices, schools (mechanical equipment rooms, boiler rooms/chiller rooms, cafeterias, cooling towers, building rooftops, etc.).

WORK ENVIRONMENT:

Strength: Medium/heavy - Exert force 50-100 lbs., occasionally; 25-50 lbs., frequently; or 10-20 lbs., constantly.

Physical Demands: Frequent sitting, standing, walking, pushing, pulling, stopping, kneeling, climbing, crouching, reaching, handling, and repetitive fine motor activities. Mobility to work in a typical office setting and use standard office equipment. Stamina to remain seated and maintain concentration for an extended period of time. Hearing and speech to communicate in person, via video conference and computers, or over the telephone. Vision: Frequent near and far acuity, and color vision. Vision to read printed and online materials, a Video Display Terminal (VDT) screen, or other monitoring devices.

Environmental Conditions: Varies from climate controlled office setting to work out doors with temperatures ranging from mild/moderate to extreme cold/heat. Exposure to noise levels ranging from moderate to loud and occasional to frequent time periods.

Hazards: Furniture, playground/office equipment, communicable diseases, chemicals (as related to specific assignment), and power/hand operated equipment and machinery (as related to specific assignment).

EXAMPLES OF EQUIPMENT/SUPPLIES USED TO PERFORM TASKS:

District-issued vehicles, various chemical testing kits (which includes, hazardous and non-hazardous materials), electronic test equipment, electric hand tools (i.e., drills, saws, high pressure cleaners, air compressors, etc.), hand tools (i.e., wrenches, hammers, screwdrivers, knives, etc.).

AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER

This employer does not knowingly discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity or expression, age, disability, or national origin.