BOARD OF REGENTS, STATE OF IOWA
REGENT MERIT SYSTEM

Class Title: Chilled Water System Technician
Class Code: 5531
Pay Grade: 213

GENERAL CLASS DESCRIPTION:
Under general supervision, applies knowledge and skill at the journey level to operate, inspect, maintain, and repair chilled water plant systems and associated equipment.

CHARACTERISTIC DUTIES AND RESPONSIBILITIES:

1. Operates, inspects, maintains, and repairs absorbers, turbines, centrifugal chillers, pumps, electric motors, tower fans, all plant and chilled loop control systems, and related equipment.

2. Installs and repairs pressure piping for water, steam domestic water, condenser water, chilled water, and condensate.

3. Overhauls equipment such as chiller tube bundles, heat exchangers, tower fans, gearboxes, drive shafts, pumps, valves, air compressors, and all other plant related equipment. Works with mechanical seals and rigging to move heavy equipment as necessary.

4. Using proper techniques, operates the following equipment: laser line up equipment, Fluke electrical analyzers, Bailey hand held Smart Transmitter, torch, arc and wire welders, impact gun, power tools, hand tools, presses, precision measuring equipment and purge pumps. Uses blueprints and schematics to repair, design and fabricate on the job as needed.

5. Directs the work of apprentices and others.

The tasks listed under the heading of Characteristic Duties and Responsibilities are examples of the variety and general nature of duties performed by employees in positions allocated in the class. The list is descriptive only and should be used for no other purpose. It is not intended that any position include every duty listed nor is it intended that related duties cannot be required.
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KNOWLEDGE, SKILLS, AND ABILITIES:

1. Knowledge of primary and satellite chiller systems, loop interface system and associated equipment.

2. Knowledge of the State Hazardous Chemicals Risks Right to Know Act.

3. Knowledge of chemical treatment situations and ability to operate and troubleshoot system.

4. Ability to determine when adjustments and repairs are necessary according to load requirements and or equipment problems.

5. Ability to lift at least 50 lbs.

6. Ability to transfer, charge, perform leak tests and handle Freon refrigerants according to EPA regulations.

7. Ability to use computer control system for plant operation and building interface control system.

8. Ability to communicate effectively orally and in writing.

9. Ability to understand and execute oral and written instructions.

10. Ability to work safely in or with high noise levels, extreme heat, dust, high places, exhaust from purge pumps, chemicals and their fumes (sulfuric acid, hydrogen peroxide, chlorine, bromine), inhibitors (arsenic and chromate), fiber glass insulation, asbestos, welding hazards, cutting tools (power saws, grinders, drills, etc.), high pressure steam, hot condensate, high pressure distribution loop, and high speed rotating equipment.

11. Ability to work unsupervised on 1st, 2nd, and 3rd shifts.

12. Ability to secure plant during steam and power outages in order to protect equipment.

13. Ability to troubleshoot and repair electrical and pneumatic control systems.
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15. Ability to operate personnel computer and work with standard software applications.  

MINIMUM ELIGIBILITY REQUIREMENTS:  

1. Any combination of education or experience that involves machinery, equipment and control systems related to a utility plant which totals four years and includes a minimum of two years direct maintenance and repair experience, and  

2. Universal grade certification through an EPA approved program to handle and purchase Freon refrigerants.  

EFFECTIVE: October 19, 2000