

**BOARD OF REGENTS
STATE OF IOWA
REGENT MERIT SYSTEM**

Class Title: Utility Plant Maintenance Mechanic II

Class Code: 5465

Pay Grade: 214

GENERAL CLASS DESCRIPTION:

Under general supervision, troubleshoots, repairs and maintains utility plant boilers, mechanical systems and equipment such as coal and gas/oil fired water tube boilers, steam turbines, pumps, valves, air compressors, pumps, coal, ash and limestone material conveying system, water, air, fuel oil, lubricating oil and steam piping systems, etc.

CHARACTERISTIC DUTIES AND RESPONSIBILITIES:

1. Performs all duties of Utility Plant Maintenance Mechanic I.
2. Troubleshoots and maintains the following equipment:
 - a) Coal and gas or oil fired water tube boilers including fans, blowers, grates, feeders, etc.
 - b) Steam turbines, pumps and related equipment
 - c) Hydraulic and compressed air systems including compressors, dryers and regulators.
 - d) Pollution control equipment including dust collectors, baghouses, centrifugal collectors etc.
 - e) Material handling systems including conveyors, bucket elevators, crushers, slide gates, chutes, coal transport vessels, etc.
3. Installs and repairs welded steam, water and air piping systems (greater than 100 psig), not covered by ASME B31.1 Standards. Performs structural welding and fabrication of structural supports. Modifies and repairs chutes, hoppers, tanks and ductwork.
4. Assists with troubleshooting and maintenance of steam turbines and other large complex equipment (over 300 horsepower).
5. Performs troubleshooting and maintenance of all types of valves (gate, globe, check, ball, etc).

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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6. Uses chainfalls, hoists, overhead cranes and chokers to safely lift large heavy components into position.
7. Uses precision measurement tools including micrometers, calipers, dial indicators to measure clearances, check coupling alignments, etc. Operates lathe and milling machine to machine or polish precision components.
8. Performs minor electrical work (120 volts) as needed to disconnect or hook-up electric motor leads, solenoid valves, and other small equipment.
9. Provides training and instructions to other staff.
10. Completes site specific utility plant training program for Utility Plant Maintenance Mechanic II within assigned time period.

KNOWLEDGE, SKILLS AND ABILITIES:

1. Knowledge of utility plant systems and equipment.
2. Knowledge of tools and methods necessary to troubleshoot and maintain utility plant equipment and buildings.
3. Knowledge of principles of electricity.
4. Knowledge of OSHA regulations and the ability to comply with OSHA procedures.
5. Skill in pipefitting – steam, water, and air.
6. Skill in the cutting and fabrication of metal components.
7. Skill in structural welding.
8. Skill in carpentry.
9. Skill in the use of rigging equipment.
10. Skill in the use of precision measurement tools.
11. Skill in the use of machining tools.
12. Ability to read and understand blueprints, control system drawings and repair manuals.
13. Ability to perform basic math computations.

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14. Ability to communicate effectively.
15. Ability to follow oral and written instructions.
16. Ability to provide training and instruction in the repair of utility plant equipment.
17. Ability to withstand constant high noise, dust, fumes, poor lighting and ventilation, and high temperature levels.
18. Physical requirements: Must be able to move and lift at least 80 lbs. Must be able to climb stairs and work in an industrial environment.

MINIMUM ELIGIBILITY REQUIREMENTS:

1. Must have a high school diploma or equivalent, and
2. Possession of a state-sponsored stationary engineers license similar to the State of Minnesota Second Class Engineer license or ability to become licensed within 6 months, and
3. Three years experience in an industrial plant, process plant or utility plant maintenance environment involving primarily rotating equipment maintenance and certification by the American Welding Society standard AWS D1.1 to perform structural welding, or
4. A two year post high school technical degree in industrial maintenance, plus one year experience in an industrial plant, process plant or utility plant maintenance environment involving primarily rotating equipment maintenance and certification by the American Welding Society standard AWS D1.1 to perform structural welding, or
5. Journey level skills in one or more of the following trades: machinist, boilermaker, millwright, or structural welding with certification by the American Welding Society standard AWS D1.1 to perform structural welding.

REVISION EFFECTIVE July 16, 2023