

IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES ▼
HUMAN RESOURCES ENTERPRISE
POWER PLANT ENGINEER 2

DEFINITION

Performs journey level work in the operation and maintenance of steam generating boilers, electrical generating equipment, centralized air-conditioning and auxiliary systems; performs related work as required.

The Work Examples and Competencies listed are for illustrative purposes only and not intended to be the primary basis for position classification decisions.

WORK EXAMPLES

Operates and controls automatic or manually operated steam boilers and electrical generating equipment; activates and regulates boiler firing, fuel and air controls, feed water and condensate pumps, fans and motors.

Makes periodic rounds of the heating or power plant and monitors a variety of gauges and meters (e.g., steam flow and pressure, water levels and temperature, power and fuel consumption and air and exit gas pressure).

Performs routine preventative maintenance on systems equipment; oils and lubricates fans, motors, pumps and generators and cleans screens, strainers, burners and automatic controls.

Blows down the boilers, checks the low water cutoff and automatic controls and manually opens/closes the valves.

Makes chemical tests of boiler feed water for alkalinity, chlorides, hardness and pH levels and adds required chemicals to the water.

Records water temperature, steam pressure levels, fuel consumption, atmospheric conditions, kilowatts of power generated and does preventive maintenance; reads a variety of gauges, meters and dials and maintains a log of results.

Assists a higher level power plant engineer make mechanical and plumbing/electrical, fire protection system repairs.

Performs a variety of general plant custodial tasks (e.g., sweeping/scrubbing floors, washing windows and cleaning/painting equipment).

COMPETENCIES REQUIRED

Knowledge of the methods, procedures, fuels and equipment used in the operation and maintenance of steam generating boilers, turbines, centralized air-conditioning, generators and auxiliary equipment.

Knowledge of plant safety and accident prevention measures required for operating and maintaining all heating and power plant equipment.

Knowledge of chemical water testing and treatment methods and procedures used to prevent scaling, pitting of boiler tubes and the buildup of sludge deposits.

Skill in operating and controlling low and/or high pressure steam generating systems.

Ability to withstand constant high noise, fumes, poor lighting and ventilation and high temperature levels.

Ability to physically operate, adjust and control steam generating systems requiring climbing, lifting, bending and walking.

Ability to learn the repair, maintenance and installation of fire protection systems.

Displays high standards of ethical conduct. Refrains from dishonest behavior.

Works and communicates with all clients and customers providing polite, quality professional service.

Displays a high level of initiative, effort, attention to detail and commitment by completing assignments efficiently with minimal supervision.

Follows policy, cooperates with supervisors and aligns behavior with the goals of the organization.

Fosters and facilitates cooperation, pride, trust, group identity and team spirit throughout the organization.

Exchanges information with individuals or groups effectively by listening and responding appropriately.

EDUCATION, EXPERIENCE, AND SPECIAL REQUIREMENTS

Experience equal two years of full-time work in the operation and maintenance of steam generating boilers;

OR

an equivalent combination of education and experience substituting 30 semester hours of accredited coursework in the operation and maintenance of steam boilers from a military school or a recognized trade or vocational school or an area college for each year of the required experience to a maximum substitution of one year;

OR

employees with current continuous experience in the state Executive Branch that includes six months of full-time work as a Power Plant Engineer 1.

SPECIAL REQUIREMENTS

Within a period of time as determined by the appointing authority, certain employees in this class may be required to obtain a Fire Sprinkler Installer and Maintenance License in accordance with Chapter 100D, Iowa Code.

Designated positions in this class require applicants to obtain the required Commercial Driver's License and endorsements within a period of time as determined by the appointing authority at the time of hire.

Effective Date: 04/10 DDF