



**YOUNGSTOWN
STATE
UNIVERSITY**

Classification Series:

N/A

Bargaining Unit:

ACE

Steamfitter

Series Purpose: The purpose of the steamfitter occupation is to install, maintain, troubleshoot, repair, and modify piping systems, steam distribution systems, heating and cooling equipment, pressure vessels, pumps, valves, and related mechanical systems to ensure safe and efficient operation of facilities and infrastructure.

Summary of Position: Under general supervision, performs skilled steamfitter work involving the installation, maintenance, repair, testing, and operation of steam, hot water, chilled water, compressed air, gas, and other piping systems. Diagnoses system malfunctions, performs preventative maintenance, and ensures compliance with applicable safety standards, codes, and regulations.

Position Information

Essential Functions and Responsibilities: Incumbents may perform some or all of these duties or other job-related duties as assigned.

Performs preventative maintenance and repair on all central utility equipment in the Central Utility Plant. Monitors water quality in the Central Utility Plant steam production center and maintains chemical levels in day tanks for chemical feed system. Performs diagnostic testing and resolves issues with all Central Utility Plant equipment. Maintains tools, and associated material involved in the performance of these duties. Maintains all rotating equipment in the Central Utility Plant and performs regular maintenance, inspection, and repair of such equipment. Maintains Campus Central Utility Plant Cooling towers including but not limited to, preseason cleaning, piping repair, regular daily inspections, and winterization.

Performs routine inspections of the entire Central Utility Distribution network via tunnels, mechanical rooms, and vaults. Ensures that all tunnels and vaults are free of debris, water, and are properly maintained. Performs maintenance on utility systems including but not limited to, condensate return systems, gate valves, globe valves, check valves, gauges, and tunnel ventilation systems. Communicates issues with utility infrastructure to supervisor and administration as needed to maintain satisfactory functional status.

Performs regular logging of university central utility equipment including but not limited to the main campus boilers, deaerator, surge tank, main campus chillers, associated pumps, steam distribution systems, and absorption chiller. Maintains all logs according to state boiler code; prepares reports for state and insurance boiler inspectors. Maintains log of condensate return percentage and plant performance.

Installs, maintains, repairs, and replaces steam, condensate, hot water, chilled water, compressed air, and process piping systems.

Fabricates, assembles, and installs piping, valves, fittings, supports, and related mechanical components from blueprints, schematics, and specifications.

Inspects, tests, troubleshoots, and repairs steam traps, pumps, heat exchangers, pressure-reducing stations, boilers, and related equipment.

Operates welding, cutting, threading, grooving, soldering, and brazing equipment as required.

Performs preventive and predictive maintenance on mechanical systems and equipment.

Diagnoses and resolves equipment failures, pressure issues, leaks, and system inefficiencies.

Reads and interprets construction drawings, blueprints, piping diagrams, and technical manuals.

Installs and maintains insulation, expansion joints, valves, gauges, and control equipment associated with steam and piping systems.

Conducts pressure testing and inspection of piping systems to ensure proper operation and code compliance.

Responds to emergency maintenance calls and assists in restoring facility operations.

Maintains records of work performed, materials used, inspections, and maintenance activities.

Assists with planning and estimating labor and material requirements for projects and repairs.

Adheres to all safety policies, lockout/tagout procedures, confined space requirements, and applicable building and mechanical codes.

Coordinates work with other trades, contractors, and facility personnel.

Performs other related duties as assigned.

Equipment Operated: Computer and all other standard office equipment; pipe threading machines; welding and cutting equipment; pipe benders; grooving machines; lifts; hand and power tools; pressure testing equipment; pumps; gauges; meters; forklifts; service vehicles; and other equipment associated with steamfitting and mechanical maintenance activities.

Work Schedule: Typically, forty hours per week; may require overtime, evening, weekend, holiday, and emergency call-back work to support facility operations.

Supervision Exercised: None

Reports to: Director, Facilities Engineering

Qualifications and Competencies

Required Certifications and/or Licensures: Certificate of Completion- Boiler Room Essentials- Full Steam Ahead upon hire; universal technician certification issued by EPA approved certifying organization per Section 608 of Clean Air Act developed after hire. Valid driver's license.

Knowledge, Skills, and Abilities:

Knowledge of: steam generation and distribution systems; pipefitting and steamfitting methods, materials, and practices; mechanical systems including pumps, valves, heat exchangers, boilers, and pressure vessels; occupational safety procedures and regulations; applicable plumbing, mechanical, and building codes; blueprint and schematic interpretation; preventative maintenance principles and practices.

Skill in: diagnosing and repairing steam and piping system failures; welding, brazing, soldering, threading, cutting, and pipe fabrication; using precision measuring devices and diagnostic instruments; reading and interpreting blueprints and technical documents; prioritizing maintenance and repair activities; maintaining accurate work records.

Ability to: install, repair, and maintain complex piping systems; work independently and as part of a team; troubleshoot mechanical system malfunctions; follow written and verbal instructions; perform mathematical calculations related to layout, measurement, and fabrication; communicate effectively with supervisors, coworkers, contractors, and customers; work safely in potentially hazardous environments.

(*) Developed after employment.

Minimum Qualifications: High School Diploma or GED; at least five years of experience working on Commercial/Industrial HVAC systems and associated piping systems and practices. Commercial/Industrial HVAC includes a combined 600 horsepower or greater boilers, chillers providing a combined 600 tons or more of cooling, and air handling units providing greater than 30,000 CFM's and experience with Direct Digital Controls (DDC); current and valid U.S. driver's license.

Preferred Qualifications: EPA Section 608 Universal Certification; Niulpe 1st class engineer or 3rd class Ohio Stationary Engineer License. Experience with YORK YK- Centrifugal Chillers and Cleaverbrooks CBEX-E Firetube boilers in excess of 1,000 tons and 1,000 BHP respectively.

Physical Requirements: In accordance with the U.S. Department of Labor physical demands strength ratings, this position will perform heavy work.

HEAVY: work involves exerting 50 to 100 pounds of force occasionally, or 25 pounds of force constantly to move objects.

Unusual Working Conditions: Exposed to dirt, high and low temperatures, loud noise and dangerous equipment; may work in tight or confined area; may work outside in unpleasant conditions.