



**YOUNGSTOWN  
STATE  
UNIVERSITY**

**CLASSIFICATION SERIES:**

Boiler Technician Occupation Series

**CLASSIFICATION CODE/PAY GRADE:**

54534/67

**BARGAINING UNIT:**

ACE

**Boiler Technician**

**SERIES PURPOSE:** The purpose of the Boiler Technician occupation is to operate and maintain boilers to supply heat and air conditioning for the university as well as perform duties and responsibilities related to another of the main functional areas associated with the maintenance and upkeep of facilities. These functional areas may include maintenance repair, air quality, plumbing, and/or building supervision.

**CLASS CONCEPT:** The class works under direction and requires considerable knowledge of boiler operation procedures and air conditioning, refrigeration, and heating technology, its processes, and blueprint reading in order to operate and maintain boilers and related mechanical equipment as well as perform repairs, preventative maintenance, and skilled installation on air conditioning, refrigeration, and heating equipment. In addition incumbents must have a considerable knowledge of the plumbing trade in order to operate and maintain boilers and related mechanical equipment as well as install new plumbing, repair plumbing equipment and maintain facilities and equipment.

Incumbents may provide work direction and training in the repair, maintenance, and operation of boiler and related mechanical equipment and/or the repair, inspection, maintenance, and installation of air conditioning, refrigeration, and heating equipment and systems. Incumbents install, modify, and repair utility, supply, and disposal systems, fixtures, fittings, and equipment such as sewage, water, gas and oil lines, compressed air, vacuum and acid systems, water closets, water heaters, hydrants, valves, and pumps.

**JOB DUTIES: Incumbents may perform some or all of these duties or other job-related duties as assigned.**

Provides work direction and training in the repair, maintenance, and operation of boiler and related mechanical equipment and/or the repair, inspection, maintenance, and installation of air conditioning, refrigeration, and heating equipment and systems; establishes preventative maintenance schedules.

Operates and maintains boilers and related mechanical equipment; reads gauges, checks equipment for proper function, and maintains logs.

Effective 06/06/2021

Makes rounds; reads gauges, adjusts equipment, and observes operation of equipment; starts, stops, and changes over-generating equipment as needed.

Keeps logs and records gauge readings; performs chemistry checks for titrate samples, PH levels, etc.; maintains inventory of parts and supplies; performs maintenance of area around boiler.

Estimates time, material, and labor costs for specific jobs; maintains tool control and inventory of maintenance supplies and equipment; arranges shifts and work schedules to meet the needs of the department; keeps job records, prepares reports of work performed and notes progress of work done by outside contractors; assists in inspection and approval of completed projects; assumes superintendent's responsibilities in their absence and instructs and/or trains personnel.

Repairs air conditioning and heating units and systems, refrigeration systems, pneumatic controls, steam traps, pressure regulators, steam separators, pumps, fans and motors and related heating, cooling and refrigeration equipment and periodically overhauls air conditioning and heating systems.

Inspects air conditioning, refrigeration and heating systems and performs preventive maintenance to ensure serviceable condition of systems.

Installs air conditioning, including window units and central systems, and heating units; installs piping, pumps, motors, and refrigeration systems.

Installs, modifies, and repairs new and existing plumbing; unclogs commodes, sinks, and sewage lines, replaces traps, valves and thermostats; installs water, steam, and gas lines; maintains building facilities and equipment; checks pipes, plumbing, and fixtures for signs of corrosion and/or checks and lubricates pumps and valves; changes filters; makes repairs on streamlines.

Assists trade personnel and/or contractors in maintenance repairs; performs building maintenance and trade tasks; performs maintenance and repair of fire alarm system; orders and/or picks up parts; obtains price quotes/bids; maintains required reports and records; maintains equipment including manifold gauges, hand tools, power equipment, and/or leak scanner.

Attends required meetings and trainings.

**Other Functions and Responsibilities:** Assists with training new hires.

Performs other duties as assigned and/or required that are within the level of responsibility for this classification at the discretion of the supervisor.

**KNOWLEDGE, SKILLS, AND ABILITIES:**

Knowledge of: air conditioning, refrigeration, and heating technology; plumbing trade, blueprint reading; local, state, and federal regulations, policies, and procedures; safety practices and procedures in boiler operation; basic mathematic principles.

Skill in: heating, ventilation, air conditioning, and refrigeration maintenance, repair, and installation; minor welding\*; operation of boiler equipment; use of common plumbing tools; building and equipment maintenance and repair; operation of hand and power tools.

Ability to: recognize unusual or threatening conditions and take appropriate action; interpret a variety of instructions in written, oral, picture, or schedule form; understand system of mechanical procedures; understand technical manuals; work alone on most tasks; use limbs, fingers or hands to operate equipment, machinery or tools; stand, bend or walk for long periods of time; apply principles to solve problems involving few variables within familiar context; read and understand simple sentences with common vocabulary

(\*) Developed after employment.

**MINIMUM QUALIFICATIONS:** High School Diploma or GED; advanced working knowledge of Commercial/ Industrial HVAC. Commercial/ Industrial HVAC includes 25 horsepower or greater boilers, chillers providing 100 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. Technician certification issued by EPA approved certifying organization per Section 608 of Clean Air Act.

**REQUIRED CERTIFICATIONS, TRAINING, AND/OR LICENSURES:** Certificate of Completion- Boiler Room Essentials- Full Steam Ahead upon hire; technician certification issued by EPA approved certifying organization per Section 608 of Clean Air Act.

**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.