

Job Class Profile: **Boiler Plant Operator**

Pay Level: **CG-23** **Point Band:** **388-421**

Factor	Knowledge	Interpersonal Skills	Physical Effort	Concentration	Complexity	Accountability & Decision Making	Impact	Development and Leadership	Environmental Working Conditions	Total Points
Rating	2	2	4	4	2	2	2	1	6	
Points	93	33	25	19	60	43	41	21	64	399

JOB SUMMARY

The Boiler Plant Operator operates and maintains the heating plant boilers and auxiliary equipment and performs scheduled and unscheduled preventative maintenance of building structure, plumbing, heating and ventilation systems as well as safety equipment.

Key and Periodic Activities

- Operates the heating boilers and auxiliary equipment.
- Performs a variety of plumbing tasks such as repairing, maintaining and/or replacing toilet flush meters, faucets, and hot water tanks; and clearing plugged drain lines, toilets and sinks, etc.
- Performs custodial tasks which include opening the building and disarming the security system and ensuring that the building security system is armed and secure at night.
- Installs door closures and floor tiles, replaces lights and ceiling tiles, mows lawns and performs general maintenance work.
- Maintains and troubleshoots problems with the heating and ventilation system and pneumatic controls.
- Operates various tools and equipment.
- Inspects fire extinguishers, fire hoses, and eye wash stations on a monthly basis.
- Greases and oils pumps, monitors and unit ventilation systems on a monthly basis.
- Performs annual inspection of heating boilers.

SKILL

Knowledge

General and Specific Knowledge:

- Policies and Procedures
- Boiler Pressure Vessel Act and Regulations
- Occupational Health and Safety Act and Regulations
- Safe Work Practices
- Plumbing, heating and ventilation systems

- Asbestos Awareness
- Life Safety Systems
- Workplace Hazardous Material Information System
- Building and Fire Codes
- First Aid

Formal Education and/or Certification(s):

- Minimum: High School Diploma and training in the safe operation of boilers; air compressors; pressure vessels; electrical systems; pumps; motors; instrumentation and plumbing.

Years of Experience:

- Minimum: 1 to 2 years

Competencies:

- Follow basic instructions and work processes
- Apply established techniques to the completion of activities
- Provide advice to others on how to solve a problem or address an issue
- Operate a computer
- Repair or calibrate machinery
- Operate machinery and power tools
- Diagnose pneumatic control system problems

Interpersonal Skills

- A range of interpersonal skills are used including listening to information from Building Manager and asking questions to get information or clarification and providing routine and complex information and direction to co-workers, contractors, etc. pertaining to heating and ventilation systems, building plumbing and infrastructure.
- Communications occur with employees within the immediate work area, department and in other departments.
- The most significant contacts are with the Building Manager for advice and guidance on problems or issues; co-workers in the performance of day-to-day activities; and with various inspectors such as Boiler Inspectors to schedule inspections; Life Safety Inspectors to ensure the environment is safe for students, employees and the general public; and with Occupational Health and Safety Officers to ensure proper procedures are implemented when completing work tasks to ensure the health and safety of employees.

EFFORT

Physical Effort

- The demands of the job occasionally result in fatigue, requiring periods of rest.
- Lifting or moving objects weighing 10 to 25 lbs. are a constant requirement and lifting or moving objects weighing 25 to 50 lbs. is performed on a regular basis. Examples include pumps, motors, buckets of wax and stripper, cleaning supplies, boxes of floor tiles, furniture, metal, wooden doors and bags of salt.
- Work involves constant standing and walking in the performance of daily activities.

- Manual or physical activities include using gross motor skills, maintaining physical balance, performing fine finger or precision work and using hand tools that require accurate control and steadiness such as drills, drill presses, chainsaws, brush saws, lawn mower, etc. There is an occasional requirement for using machinery or equipment that requires very controlled movement or operating heavy equipment such as a forklift.

Concentration

- **Visual concentration or alertness** is required when monitoring heating systems, building and equipment; performing inspections; and operating power tools, forklift, etc.
- **Auditory concentration or strain** is experienced when listening to operational sounds of boilers, pumps and motors, etc to identify any unusual sounds that may indicate mechanical problems.
- **Other sensory demands such as smell** is important to determine if anything is burning or to locate the source of a fire; and **touch** is important when checking for overheated bearings in pumps, motors and piping and pump/motor temperature.
- **Alertness and concentration** are required when working around moving parts, machinery or energized equipment; working at heights; working in cramped or tight spaces and working in extremely hot environments. **Higher than normal levels of attentiveness or alertness for the health and safety of others** is required to ensure that boilers are operating properly to prevent a build-up of fuel in the furnace which could cause a furnace explosion and to identify any leaks in the heating system that could rupture and cause serious harm.
- **Time pressures and deadlines** are experienced in the performance of daily work activities to ensure work requirements are completed on schedule; when diagnosing system problems or responding to emergency situations. **Interruptions and lack of control over work pace** are experienced with conflicting priorities or equipment malfunctions.
- **Eye/hand coordination** is required to use a variety of hand tools and equipment.
- **Exact results and precision** are required when measuring and recording data related to building architectural and mechanical dimensions.

Complexity

- Work involves the operation and maintenance of heating plant boilers and auxiliary equipment as well as performing general maintenance; plumbing and custodial tasks that are different requiring a range of skills and knowledge. Work is performed within established guidelines provided in various procedural or reference manuals.
- A typical problem or challenge is diagnosing problems and performing repairs to heating lines, controls and related equipment.
- Reference material to assist in addressing problems, challenges and issues include Occupational Health and Safety Manual; Departmental Policies and Procedures; Boiler Pressure Vessels Act & Regulations; Power Engineering Procedures and advice and guidance from Building Manager.

RESPONSIBILITY

Accountability and Decision-Making

- Work is performed in a highly controlled and regulated environment. Daily work activities

<p>are performed independently.</p> <ul style="list-style-type: none"> — Supervisory approval is required for most day-to-day decisions. — Discretion and independence of action may be exercised when responding to emergency situations such as trouble with a heating system.
Impact
<ul style="list-style-type: none"> — Work results can have a positive impact within the immediate work area; department; organization and on students/staff/general public as well as on resources such as equipment; finances; facilities; health and safety; and corporate image when heating plant boilers; auxiliary equipment and facilities and related systems are operated and maintained in accordance with applicable standards and regulations. — Mistakes or errors can result in building closures; health and safety issues for building occupants if there is an explosion or fire; damage to equipment; increased financial costs; and a negative impact on the corporate image, etc. — Work tasks and activities are regulated by the Boiler Pressure Vessels Act and Regulations; Occupational Health and Safety Act and Regulations as well as Building and Fire Codes and errors are typically identified and resolved within hours of problem identification.
Development and Leadership of Others
<ul style="list-style-type: none"> — Not responsible for the supervision of staff and not typically required to provide development and leadership to other employees.

WORKING CONDITIONS

Environmental Working Conditions
<ul style="list-style-type: none"> — There is a requirement to wear safety equipment such as safety shoes, vest, hard hat, eye protection, hearing protection, and respiratory equipment. — The likelihood of minor cuts, bruises, abrasions or minor illnesses resulting from hazards in the job is moderate. Fractures and partial or total disability is limited. — Work is performed in a boiler room with exposure to undesirable working conditions such as unusual/distracting noise; dust; fumes; vibration; and electric shock when working with electrically charged equipment and systems. The potential for fire and explosion is present when working in a boiler room. Also exposed to bodily fluids and waste when performing plumbing work; odours; dangerous heights when working on a ladder; wet and slippery surfaces; sharp objects when working with tools; and heavy machinery such as compressors, pumps, forklifts, etc.