#### Trent University LogoOPSEU JOB DESCRIPTION

**Job Title:** Preventative Maintenance Assistant

**Job Number:** SB-079 | VIP: 1299

**Band:** OPSEU- 7

**Department:** Facilities Management

**Supervisor Title:** Manager, Mechanical & Electrical Services

**Last Reviewed:**  June 15, 2022

#### **Job Purpose:**

Reporting to the Manager, Mechanical & Electrical Services (MES), this position will assist with providing operational and technical support for Mechanical & Electrical equipment throughout the University. The position will carry out assigned preventative maintenance procedures and work request response on a wide range of HVAC & related mechanical/electrical systems.

#### Key Activities:

1. Provides first response throughout the University to respond to both emergent and routine requests. May assess a situation and resolve, or immediately escalate to Technicians or Manager. These are the “Fixit’s” or Demand Work requests that come in for MEM issues identified by University community.
2. Cleans, lubricates, and performs basic maintenance of mechanical equipment, including changing filter systems and belts on HVAC equipment.
3. Performs minor Electrical Maintenance including reset breakers, replacement of light bulbs, may assist in replacing 110V ballasts, etc. Only completes work on 120V or low voltage systems.
4. May complete Lockout/Tagout on equipment up to 600V level.
5. Performs summer/winter switch over of HVAC Heating/Cooling coils to prevent freeze up damage and insuring no water traps in the coil.
6. Assists in the seasonal conversion of single-pipe water/glycol HVAC systems between Heating and Cooling modes.
7. Coordinates with Manager, Mechanical & Electrical Services and Preventative Maintenance Team Leader on priority of preventative maintenance tasks associated with HVAC system and the shutdown of the HVAC system for the work/tasks associated with the affected system. This position has the ability to shut down equipment, as required, either manually or through the Building Automation System.
8. Having a working knowledge of Building Automation System (Siemens) and other computer-based Control Systems.
9. Assists Mechanical and Electrical Maintenance staff and/or external specialist contractors, as required, with installations, maintenance and repairs of all building services equipment at any location as assigned (e.g. install motor, run wires, wash coil etc. as needed).
10. Performs minor Plumbing maintenance issues, un-clogging of toilets and pipes, replacement of drain hoses, minor leak repairs.
11. May assist Plumbers on Major Plumbing maintenance tasks. (Auger drains, Plumbing installations, etc.)
12. Carries out scheduled preventative maintenance assignments at any Trent University locations, as assigned.
13. Performs minor mechanical and electrical repairs as requested (e.g., aligning motor, adjust pulley and belt tension, replace face plates etc.)
14. May support/assist in the area of electronic issues, which may include the preventive maintenance of electrical equipment and Variable frequency Drives. Replacement of pneumatic controls with electronic controls.
15. Completes scheduled and on-demand Pneumatics preventive maintenance to pneumatics systems. Includes adjustment/testing/repairs and replacement of components.
16. Responsible for carrying out testing and adjustment of chemical additives to HVAC systems, this includes Boilers, R.O. system and adjustment to the chemical treatment and feed system computerized panel. Take corrective action as required per manufacturer’s recommendations.
17. Performs routine scheduled inspections of buildings; Mechanical & Electrical rooms, Washrooms, etc. checking operation of equipment and completing log sheets.
18. Picks up mechanical and electrical equipment, spares and related items from local suppliers and wholesalers, as needed.
19. Maintains cleanliness of building Mechanical / Electrical rooms. Ensures all electrical and mechanical rooms are maintained in an orderly and tidy manner. Removes all garbage and waste materials on a periodic basis. Clears ice and snow to maintain access to rooftop mechanical equipment.
20. Transports maintenance materials and chemicals from location to location in order to perform maintenance related work.
21. Assists with testing and inspection of fire and life safety systems.
22. Cleans and repaints walls, basic carpentry work, floors, pipes, ductwork, insulation, louvers, grilles etc., as needed, or as directed.
23. Operates Trent University vehicles in a responsible manner.
24. Produces innovative solutions to mechanical & electrical problems.
25. Observes and reports any health & safety, risk management, or security problems or concerns (e.g., when working with external trades.)
26. Manually cleans catch basins or assists contractor with same.
27. Maximizes time efficiency by planning daily events.

#### Education Required:

* Secondary School Diploma.
* Post-Secondary Certificate or Diploma in a building related program. (1-2 years) would be considered a STRONG asset.
* General knowledge of electrical, mechanical, plumbing, and pneumatic systems.

#### Experience/Qualifications Required:

* Four years of directly related experience.
* Must have and always maintain an Ontario Drivers Licence.

**Job Evaluation Factors:**

**Responsibility for the Work of Others**

Indirect Responsibility for the Work of Others:

* Full-time - teach/train/supervise new employees on a continuing basis.
* Outside Contractors - establish a safe working environment and monitor to ensure the same is maintained.

**Analytical Reasoning**

* Chemical concentration amounts are critical in systems. (Nitrate, glycol, steam boilers, water softeners etc.)
* Troubleshooting in First Response role. Repair or escalation on malfunctioning equipment.
* Determining whether a piece of equipment is running properly.

**Decision Making**

* First response (runner) role requires many field decisions are made independently.
* Chemical additive concentrations, organizing sequence of work orders to optimize efficiency, purchase of proper parts (lamps, size, colour, wattage).
* Determine safest way to perform work.
* Ensure equipment appears to be serviced at appropriate intervals and report back to Team Lead.

**Impact**

* Impact of incorrectly maintained, non-operational HVAC Systems
* Incorrect chemical concentrations can lead to severe/costly damage that may result in discomfort and/or business interruption.
* Work performed must be completed safely at all times given risks associated with pressure, electrical, moving equipment.
* It is critical to maintain systems correctly to avoid serious premature failures. Failures are expensive and, at times, dangerous. Poor maintenance can result in major incidents being uninsurable.

**Communication**

Internal:

* Lead Hand – to receive daily instructions.
* First-response may require immediate communications with impacted students, staff, and employees.
* Ensuring that any shut-down/start-up of equipment through the Building Automation System is thoroughly communicated to avoid injury or damage.
* Frequent dispatch from Fixit desk throughout the day.
* Security - matters pertaining to security.
* Physical Resources scheduler.
* Preventative Maintenance scheduler.
* Custodial Coordinator – supplies.
* Physical Resources Staff.
* Assist staff and students with concerns, directions, etc.
* External contractors – provide guidance and assistance.

External:

* Students/General Public - guided tours and general information.
* External parts & safety equipment suppliers.
* Gaining access to building spaces while employees/students/faculty are on-site.

**Motor/ Sensory Skills**

* Fine motor skills – operate hand & power tools.
* Gross motor skills – driving Trent vehicles.
* Equilibrium – dexterity to climb ladders.
* Hearing - To detect unusual sounds under normal operating conditions, use telephone to consult with internal and external contacts.
* Smell - Detect overheating of equipment.
* Touch - Part of inspection demands feeling bearing for overheating & unusual mechanical vibrations.
* Visual assessment of equipment.

**Effort**

Mental:

* Sustained Attention - Must be constantly aware of sound, smell, etc., to detect trouble.
* Stress - Working with aging equipment that may or may not work as it is supposed to
* Listening - Process information on a particular job.
* Developing procedures, while on-site, to ensure work is performed safely.

Physical:

* Heavy Lifting - Removing ice and debris, shoveling snow from roofs, paths, and driveway, etc., when performing maintenance on equipment, carrying oil, repairing belts, changing filters.
* Extended reaching - Awkward positioning to check bearings and grease fittings and cleaning racks.
* Walking/Stairs - Accessing individual job sites.
* Lifting - Electric motors, pipes, shop tools, chemical pails & drums.
* Fall protection equipment - Being tied off working close to ledges.
* Risk of electrocution (Arc Flash).

**Working Conditions**

Physical:

* Danger - Working on the roof to clear snow in the winter and on the catwalk exposed to slippery and dangerous conditions. Potential consequences are personal injury or death.
* HVAC & associated machinery - Dirty, dusty, greasy environment.
* Weather - Exposure to severe winter weather conditions and extreme heat in summer.
* Confined space - Working in underground tunnels, mechanical rooms, inside air handlers.
* Noise - Working in close proximity to loud machinery and tools.
* Danger - Working around and testing high pressure steam boilers, handling of toxic chemicals.
* Insect & animal exposure - Bees, wasps, hornets, spiders & snakes.
* Potential Arc-Flash.

Psychological:

* Supplies - Lack of tools.
* Deadlines, time pressure - Taking responsibility to ensure deadlines are met.
* Quick decision making required when first responding.