

ISSUED: 7/92
& 3/88

TITLE: <u>Engineer, First Class</u>	SALARY SCHEDULE:	CLASS CODE: <u>OE604</u>
UNION: <u>Operating Engineers</u>	SALARY GRADE:	EEO CODE: <u>60</u>
	FLSA: <u>Non-Exempt</u>	E- CLASS: <u>OE</u>

POSITION PURPOSE

Perform highly skilled work in the repair, operation and maintenance of heating, ventilation, air conditioning, mechanical equipment, pneumatic control systems, building electrical systems, plumbing systems and DDC systems throughout the University.

ESSENTIAL JOB FUNCTIONS

- Operate and monitor environmental systems for heating, ventilation, air conditioning, water, lighting, cooling tower water chemical maintenance and building security systems. Access units in windows, on rooftops, above ceilings, behind walls, in crawl spaces or closets, etc.; use appropriate safety precautions, which may require wearing a ventilator; evaluate equipment and order parts; ensure fire prevention consistent with specifications and energy guidelines.
- Perform preventive maintenance on equipment. Troubleshoot heating/ventilation and air conditioning systems; make necessary repairs to ensure proper environmental temperatures and maximize service life of equipment; manipulate equipment using hand tools to access parts.
- Check and repair pumps, condensate tanks, valves, water heaters, sump pumps, reducing stations, swimming pool equipment, boilers and plumbing systems. Access equipment which may be at any height and in any location on campus; inspect systems; diagnose problems; obtain and install replacement parts to ensure efficient operation; work with hand tools and at any angle. Clean all plenum chambers, fans, boiler rooms and other areas designated for heating and ventilation use.
- Clean and change air filters. Access filter chambers which may be located at any height and angle with cumbersome boxes containing replacement filters; adjust and replace belts on equipment. Align pump/motor couplings. Replace steam traps. Control flow by opening and closing gate, globe and/or butterfly valves; respond to emergencies such as floods, fires, equipment failures, etc. and assess the situation and determine how to minimize harm to equipment, ventilation systems, facilities, and people; supervise response; perform repairs as necessary.
- Maintain communication with building personnel necessary for proper maintenance and operation of buildings; respond to calls for service; open and close dampers; generate work orders to have additional work done and follow through on its completion; coordinate repair work on existing heating/ventilation and air conditioning systems; work with architects and engineers to develop systems for new construction. Prepare and maintain records, logs and work requests.

THIS DESCRIPTION IS INTENDED TO INDICATE THE KINDS OF TASKS AND LEVELS OF WORK DIFFICULTY THAT WILL BE REQUIRED OF POSITIONS THAT WILL BE GIVEN THIS TITLE AND SHALL NOT BE CONSTRUED AS DECLARING WHAT THE SPECIFIC DUTIES AND RESPONSIBILITIES OF ANY PARTICULAR POSITION SHALL BE. IT IS NOT INTENDED TO LIMIT OR IN ANY WAY MODIFY THE RIGHT OF ANY SUPERVISOR TO ASSIGN, DIRECT AND CONTROL THE WORK OF EMPLOYEES UNDER THEIR SUPERVISION. THE USE OF A PARTICULAR EXPRESSION OR ILLUSTRATION DESCRIBING DUTIES SHALL NOT BE HELD TO EXCLUDE OTHER DUTIES NOT MENTIONED THAT ARE OF SIMILAR KIND OR LEVEL OF DIFFICULTY.

- Perform other duties as assigned.

MINIMUM QUALIFICATIONS

- High school graduate or equivalent combination of education and/or experience.
- Graduate of Stationary Engineer Trade School or recognized apprentice program.
- Possession of unlimited First Class Steam Engineer's license from the City of Detroit.
- Reasonable related experience in pipe fitting, general maintenance, electrical maintenance and testing.
- Refrigeration experience preferred.
- Some experience on HVAC system controls, electrical systems, piping systems and DDC Control systems.
- Ability to read and interpret blueprints.
- Ability to access equipment which may be at any height and angle from below ground level to several stories high.
- Ability to work in varying environmental and possible hazardous working conditions utilizing appropriate safety precautions.
- Must obtain security clearance.