

**City of Salem**  
**CLASS SPECIFICATION**

CLASS. TITLE:	Instrumentation and Electrical Supervisor	CLASS. CODE: 0551
DEPARTMENT:	Public Works	FLSA: E
REPORTS TO:	Operations and Maintenance Supervisor	DATE: 7/1/2002

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**Job Summary:**

Responsible for Willow Lake's electrical and instrumentation systems, which includes preventive and predictive maintenance, replacements and upgrades. Supervises staff of journeyman electricians and instrumentation technicians.

**Essential Job Functions**

(All functions may not be performed by all incumbents.)

1. Responsible for planning, developing, directing and coordinating preventative and corrective electrical and instrumentation work for the equipment at Willow Lake Wastewater Treatment Plant.
2. Supervises Journeyman Electricians and Instrumentation Technicians.
3. Schedules and assigns electrical and instrumentation work (corrective, preventative, modifications and new). Develops daily work plans to identify the work and the technician who will complete the work, and submits plan to Operations daily.
4. Coordinates the work with Operations and Maintenance sections for tentative shut downs of equipment for electrical or instrumentation work.
5. Reviews maintenance requests, generates work orders in the Computer Maintenance Management System, and prioritizes and assigns work daily.
6. Administers Electrical Maintenance contract and plans and schedules work for Journeyman Electrician(s) daily.
7. Administers an electrical testing contract of all complex electrical systems, including but not limited to, Motor Control Centers, Generator Controls, Protect Electrical Systems, medium volume distribution systems cables, power switch cubes, transformers and 480 volt Switchboards. Plans, schedules and coordinates the testing process.
8. Develops procedures with electrical and instrumentation technicians, coordinates work with Operational, Lab, Biogro, Administrative and maintenance staff, and submits work for review and revising before implementing work.
9. Submits a quarterly and annual report of electrical and instrumentation work performed at the Willow Lake Wastewater Treatment Plant to the Marion County Electrical Inspector to maintain required permits. Submits an annual roster of the Electrical and Instrumentation licenses of Willow Lake staff and electrical maintenance contractor electricians that perform electrical work at Willow Lake to Marion County.
10. Reviews the inspection report with Plant Electricians and submits work orders for changes as needed.
11. Coordinates all new and as built documentation of electrical and instrumentation drawings in the format of Auto CAD. Reviews for accuracy.
12. Schedules State of Oregon mandated electrical training for all licensed electrical personnel at Willow Lake possessing an electrical license.
13. Authorizes purchase orders for electrical and instrumentation supplies and equipment, and reviews purchases with technicians prior to approval to ensure proper application.

**City of Salem**  
**CLASS SPECIFICATION**

14. Inputs equipment data, project management requirements and procedures into the Computer Maintenance Management System for new and existing equipment.
15. Coordinates and schedules electrical work which includes Portland General Electric.
16. Carries out supervisory/managerial responsibilities including hiring new employees, conducting performance appraisals, and disciplining employees. Schedules training for employee development and mandatory city training including safety meetings.
17. Participates in the review of plant construction and modifications, coordinates schedules for electricians and instrumentation technicians to review submittals, and submits detailed reports on the recommendations and comments made by technicians.
18. Maintains and reviews operating and crew records and prepares reports. Maintains computerized records of equipment installation and repairs, forecasts maintenance repairs, and recommends equipment replacement. Coordinates maintenance activities with the Operations Section.
19. Participates in the development of the annual budget for equipment expenditures and contract services and monitors budget expenditures related to these areas.
20. Participates in the development and implementation of new control system enhancements or modifications to the Foxboro Distributive Control System. Ensures all documentation for installation and wiring of all equipment has been completed and assigns and oversees work.
21. Provides training to Operations and Maintenance staff on new instrumentation and control systems and documents training.

**Important Job Functions**

1. Attends meetings and various training seminars and conferences as required.
2. Reviews and tests new instrumentation, electrical control equipment and systems for future use.
3. Performs other duties as required by Maintenance Supervisor.

**MATERIAL AND EQUIPMENT USED:**

- Desktop computer
- Forklift, Bobcat, trucks, electric carts, and other motor vehicles
- Volt meter, amp meter, Megger, instrument test equipment, calibrators, power tools, hand tools, band saw, drill press, etc.
- Pumps, motors, generators, compressors, and other types of portable equipment
- Calculator
- Miscellaneous office automation equipment, i.e. – fax, phone, copier, etc.

**MINIMUM QUALIFICATIONS REQUIRED:**

**Education and Experience:**

Associates degree from an accredited college or university in wastewater technology, mechanical engineering, electrical, instrumentation or related field; and,  
Five (5) to seven (7) years of experience in a related field; or,  
Any combination of education, experience and training which provides the required knowledge, skills, and abilities to perform the essential functions of the class.

**City of Salem**  
**CLASS SPECIFICATION**

**License(s) and Certification(s):**

- State of Oregon Class C Drivers License
- State of Oregon Limited Maintenance Electrical license (LME) Desired
- State of Oregon Restricted Energy Technician license (RET) Desired

**KNOWLEDGE AND ABILITIES:**

**Knowledge of:**

- Electrical, instrumentation and electronic systems used in wastewater treatment plants.
- Maintenance, adjustment, repair and construction of mechanical, electrical, instrumentation and electronic systems.
- Methods, materials and tools used in the repair, maintenance and adjustment of electrical, electronic, instrumentation, and computerized monitoring and control systems.
- Occupational hazards and proper safety precautions.
- Operations and use of testing equipment and controls installed for the proper functionality of a control system.
- Contemporary office practices and procedures and basic office software products.
- Office management and record maintenance procedures.
- General accounting procedures.

**Ability to:**

- Read and interpret control and systems diagrams.
- Develop plans and specifications for review of engineering staff.
- Plan and operate a maintenance and servicing program, and to secure efficient and effective operation of the systems.
- Use modern electrical, electronic and instrumentation diagnostic instruments.
- Communicate effectively verbally and in writing to a wide range of individuals.
- Use various software packages.
- Supervise and manage staff.
- Work independently and make decisions with minimal supervision.
- Comprehend and apply concepts for enhancement and efficiency of department and general operations.
- Establish and maintain effective working relationships with individuals, coworkers and other agencies.
- Perform accounting computations and procedures.
- Maintain required work hours and attendance.

**Physically able to:**

- Sit, keyboard, write, hear and speak for extended periods.
- Stand frequently for extended periods.
- Bend, kneel, stoop or climb.
- Working around hazardous machinery, electrical hazards and wet surroundings.
- Work at heights and in a hazardous atmosphere.
- Lift up to 50 pounds.

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**CLASS SPECIFICATION**

The above statements are intended to describe the general nature and level of work being performed by employees assigned this classification. They are not to be construed as an exhaustive list of all job duties or roles performed by personnel so classified. It is as well intended to be compliant with the Americans with Disabilities Act.