

City of Salem
JOB DESCRIPTION

CLASS. TITLE: Flow Monitoring Technician
DEPARTMENT: Public Works
REPORTS TO: PW Field Supervisor

CLASS. CODE: 0115
FLSA: N
DATE: 6/20/2003

Job Summary:

This is skilled technical work including lead responsibilities. Duties include the installation, maintenance and repair of flow monitoring, rain gauge, and storm sampler equipment and the analysis of the results of recorded flow data. Work also includes troubleshooting flow monitor devices, sensors, cables, data and graphs.

Lead responsibilities of the classification include providing training in equipment troubleshooting, problem resolution, computer data entry, and in developing and maintaining spreadsheets; attending project meetings with professional engineers; and sanitary sewer system operation during the wet weather months and other emergencies. Sewer system operation involves taking rotating weekly stand-by duties as needed and working overtime. Sewer System Operation involves working with SCADA and ADS software programs, and making sensitive and accurate sewer overflow reports for City staff.

Essential Job Functions

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

1. Coordinates and/or performs flow monitoring crew activities for the installation, maintenance, calibration, repair of flow monitoring and rain gauge equipment, and the summer smoke testing program. Accompanies crews to site locations as needed to diagnose unique field conditions or to determine location of flow monitoring equipment. Work may involve testing, repairing, calibrating, or maintaining flow monitoring equipment in the field or maintenance shop as required.
2. Applies principles of hydraulics to predict pipe flow levels, identify flow measurement variables, placement locations of flow monitoring devices. Utilizes a personal computer or laptop to analyze sanitary or storm sewer flows, generation of written reports to Civil Engineers and other Public Works Divisions concerning level of flows through the sanitary or storm sewer utility systems.
3. Trains flow monitoring crew on the diagnosis of equipment malfunction and repairs to flow monitoring equipment; the input of collected data and methods to analyze collected data; and the interrelationship of flow monitoring stations to the rest of the utility system.
4. Maintains crew records, flow monitoring records, smoke testing records/reports, spreadsheets, and assists in maintaining Hansen sewer maintenance histories. Assists with determining and acquiring equipment and with projecting budget and capital improvement needs. Assists staff in identifying Capital Improvement Projects (CIP's) through TV report data, mapping, and coordination with City Engineering Staff for project identification.

Important Job Functions

1. Attends meetings and various training as required.
2. Performs other duties as required by supervisor.

MATERIAL AND EQUIPMENT USED:

- Desktop computer and other office support equipment
- Flow monitoring and related equipment.

MINIMUM QUALIFICATIONS REQUIRED:

Education and Experience:

Considerable experience in flow monitoring, completion of a two-year technical course or two year college degree with major course work in engineering, electronics, computer science or other related fields; or any equivalent combination of experience and training which provides the following knowledge and abilities:

License(s) and Certification(s):

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- Class C Oregon driver's license.
- First Aid and/or CPR certification is desirable

KNOWLEDGE AND ABILITIES:

Considerable knowledge of:

- The methods and instruments used in flow monitoring, rain gauges, smoke testing, manhole inspection, Inflow and Infiltration (I/I), and of factors affecting the performance of the instruments.
- Principles of hydraulics and electronics as these subjects apply to sewer utility systems and the operation of monitoring instruments.
- Accurate collection, input and analysis of flow readings to diagnose the activity within a sewer utility system.
- Flow monitoring equipment repair and troubleshooting methods.

Knowledge of:

- Occupational hazards and safety precautions related to the field work in the repair and installation of flow monitors.

Ability to:

- Perform precise analytical work,
- Operate a personal computer and other modern office equipment,
- Make complex calculations,
- Reduce field notes,
- Prepare plans and reports on current and proposed projects,
- Maintain effective working relations with other employees, city engineering staff, engineering consultants, contractors, and members of the public,
- Plan and direct subordinate personnel,
- Communicate orally and in written reports,
- Work in a variety of weather conditions,
- Work in sanitary sewer manholes using confined space entry permits, ventilation and gas monitoring equipment, rescue equipment, and following confined space safety procedures.
- Read and interpret engineering construction plans, new construction as-builts, system diagrams
- Read and prepare sanitary and storm sewer mapping (both printed and electronic), and other documents software program usages relating to existing physical conditions in the sanitary sewer and/or storm sewer collection systems.
- Maintain required work hours and attendance.

Physically able to:

- Sit, keyboard, write, hear, see clearly and speak for extended periods.
- Bend, kneel, stoop or climb stairs.
- Lift up to 50 pounds.
- Perform strenuous labor tasks under varying weather conditions and to lift cumbersome or heavy objects.

Work can include exposure to noise, fumes, dust, chemicals, raw sewage, unsanitary conditions, construction zones, working inside confined spaces, working from heights, lifting heavy objects, walking through brushy easements on uneven terrain, working in heavy traffic, in and around streams or other waterways with safety precautions.

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.