Energy Management Systems (EMS) Technician

**BASIC FUNCTION:**
Under the direction of an assigned supervisor, perform skilled journey level work in support of various utilities computer-based systems and related equipment including administration, operation, and maintenance of data-acquisition systems, computer systems and data communication systems.

**DISTINGUISHING CHARACTERISTICS:**
EMS technicians are assigned to work primarily in HVAC and EMS trade in which they are expected to have major skills; however, they may be required to help with other work as needed. The technician is expected to train and supervise apprentices as assigned.

**REPRESENTATIVE DUTIES:**
Depending upon assignment, duties may include, but are not limited to the following:

3. Maintains, troubleshoot, and repair EMS wiring, processors, modules, and related equipment.
4. Electronically monitor, via computer software, the operation of the District's EMS. The ability to program and edit the EMS is required.
5. Provides troubleshooting of EMS and HVAC equipment and makes the appropriate software and hardware repairs. Some electronic related skills and a basic knowledge of electrical theory will be necessary in order to repair the computer and associated electronic components.
6. Programs the EMS to accommodate normal and custom schedules as required by facility usage.
7. Commissions software points on the EMS on a point-by-point basis to ensure proper operation.
8. Programs the EMS to operate the HVAC system in the most energy efficient manner.
9. Installs and commission hardware points on the EMS on a point-by-point basis to ensure proper operation. Provide testing and calibration of EMS controls. Provide preventative maintenance for all EMS hardware.
10. Monitors the effectiveness of each energy conservation measure installed by the District and make appropriate recommendations for improving. If the actual operation falls short of expectations and the projected energy savings are at risk, this individual is responsible for troubleshooting and correcting the problem.
11. Preview and assess the District's lighting systems to ensure energy efficiency objectives are met.
12. Continually investigate and make recommendations for implementing new energy conservation measures.
13. Operate computer and software programs such as word processing, database, and spreadsheets in order to perform daily office duties.
14. Preview, analyze, and prepare reports on the District's utility bills as directed.
15. Generate reports as requested of items that affect energy usage including schedule changes, temperature trend logs, and equipment trend logs.

16. Serve as the District's representative and provide oversight of contractors working on EMS and HVAC projects and provide services including the preparation of bid documents, soliciting bids, monitoring contractors, inspection of work, and other related activities.

17. Perform other related duties as assigned.

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

1. Knowledge of PC computer operating systems, EMS software basics.

2. Good communications modes or methods to support system end-users.

3. State of the art interactive and real-time utility information and data acquisition systems.

4. Remote data-acquisition and metering equipment.

ABILITY TO:

1. Demonstrate understanding of, sensitivity to, and respect for the diverse academic, socio-economic, ethnic, cultural, disability, religious background and sexual orientation of community college students, faculty and staff.

2. Participate in appropriate training in hazardous materials handling, storage, and disposal; follow designated policy and procedures for Haz-mat identification, storage and disposal; maintain standards related to environmental compliance and personal health and safety as required.

3. Use a computer for entry and retrieval of information for work assignments.

4. Operate assigned equipment.

5. To perform system hardware and software updates/upgrades.

6. Estimate the scope and cost for each work assignment and of the necessary tools and materials to complete the assignments.

7. Work from sketches, drawings, and blueprints.

8. Understand and carry out written and oral instructions.

9. Maintain cooperative relationships with those contacted in the work.

10. Assign and supervise the work of apprentices.

EDUCATION AND EXPERIENCE:
Sufficient education, training and/or work experience to demonstrate possession of the following knowledge, skills, and abilities, which would typically be acquired through:

Any combination equivalent to: Twelfth grade supplemented by two years of related college course work in HVAC or related field and four years experience with automated EMS and HVAC systems, pneumatic control systems lighting systems and energy conservation. An Associate's Degree in computer Science or Information Systems or a related field preferred.
LICENSES:
Possession of an appropriate California Operator's license issued by the State Department of Motor Vehicles.

WORKING CONDITIONS:

ENVIRONMENT:
Work in a computer environment.

PHYSICAL ABILITIES:
1. Hearing and speaking to exchange information.
2. Dexterity of hands and fingers to operate assigned equipment.
3. Seeing to read various materials.
4. Bending at the waist, kneeling or crouching.
5. May perform moderate lifting.
6. Sitting for extended periods of time.
7. Accessing HVAC equipment on roofs, in attics, and various mechanical rooms.

DATE APPROVED: March 2000
RANGE: L-61
EEO-CATEGORY: H-60