

GAS ENGINEER

JOB DESCRIPTION

Classification Responsibilities: Under the general direction of a Supervising Engineer, performs professional and specialized engineering work related to the functioning of the City's natural gas systems. This class performs related duties as required.

Distinguishing Features: The Gas Engineer performs specialized and difficult engineering and technical work related to the design and operation of the City's natural gas system. The work involves the ability to prepare routine and special reports, including the required federal documents. In addition, the Gas Engineer supervises technicians in the design and drafting of gas systems plans. The Gas Engineer is expected to use specialized knowledge and developed technical skills in completing assignments. Assignments provide opportunity for the application of independent judgment and initiative in the design and review of projects. Work is performed under the general direction of a Supervising Engineer who reviews work through conferences and inspection. The Gas Engineer class differs from the Senior Gas Engineer class by the latter having registration in the state of Arizona as an Engineer and performing more difficult and varied professional engineering work assignments, with minimal direct supervision. Employees in this class may progress by noncompetitive promotion to Senior Gas Engineer upon meeting the specific criteria-based promotion requirements of performance and professional registration. This class is FLSA exempt-professional.

QUALIFICATIONS

Minimum Qualifications Required. Graduation from an accredited college or university with a Bachelor's Degree in Civil, Mechanical, or related engineering field. Four to five years of gas engineering (or related engineering) experience.

Special Requirements. Must possess a valid Class D Arizona Driver's License by hire date.

Substance Abuse Testing. None.

Preferred/Desirable Qualifications. None

ESSENTIAL FUNCTIONS

Communication: Communicates with the general public, other City employees, vendors, management, consultants, and contractors in order to prepare gas design plans for public and private improvements, and promote future gas usage. Instructs and trains subordinates in a classroom setting regarding design of gas system improvements. Prepares written documents including letters, reports, and required federal documents with clearly organized thoughts and using the proper sentence construction, punctuation, and grammar.

Manual/Physical: Reviews the work products of others to ensure compliance with standard operating procedures, federal regulations, and state regulations. Monitors and evaluates gas system components to determine compliance with prescribed operating and safety standards of the Corporation Commission and the Department of Transportation. Detects traffic sounds when working near moving traffic.

Operates a City vehicle requiring a standard Class D Arizona Driver's License to drive to project sites to review field work. Operates standard office equipment, including blueprint machines and drafting equipment. Prepares and updates maps, schedules, and graphs. Prepares plans and specifications for distribution to other City departments and the public. Meets scheduling and attendance requirements.

Mental: Plans and organizes gas system designs. Supervises and evaluates the work of subordinate personnel in the design and drafting of gas system plans. Prioritizes own work and the work of others. Assigns work to personnel. Coordinates work activities with other City departments, agencies, and utility companies. Develops gas system procedures and policies. Conducts research and analyzes gas equipment and material. Performs mathematical calculations, statistical computations, and cost analysis to calculate gas load and estimate project and construction costs. Understands and interprets blueprints, schematic drawings, layouts, or other visual aids to design gas systems. Learns job-related material through on-the-job training and classroom instruction regarding gas system design.

Knowledge and Abilities:

Knowledge of:

natural gas systems principles, practices, and methods of operation;
mapping and drafting techniques;
cathodic protection methods and tests;
the pipes, meters, regulators, and materials, common to natural gas distribution systems;
public works design standards, materials, and construction; and
the principles and practices of engineering and the methods and techniques used in design.

Ability to:

design natural gas distribution systems;
design cathodic protection systems and elements;
supervise technicians in the design and drafting of gas system plans;
review requests for gas services and meters for size, location, and safety requirements;
provide information to homeowners, developers, architects, engineers, and the general public on matters relating to the gas system;
perform corrosion tests and analysis required in the detection and resolution of problem areas;
assist Utility Construction personnel in cathodic protection methods and procedures;
prepare or oversee the preparation of reports on gas consumption;
prepare or oversee the preparation of routine and special reports, including required federal documents;
calculate gas load;
estimate project and construction costs;
establish and maintain effective working relationships with City personnel, private engineers, utility owners, developers, and property owners;
perform modeling of the City's natural gas system using a personal computer;
research and analyze gas system materials; and
assist in promoting/marketing natural gas.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included does not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.

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