

## **GAS SYSTEM WELDER**

### **JOB DESCRIPTION**

**Classification Responsibilities:** A Gas System Welder is responsible for welding steel gas lines using electric arc and oxyacetylene welding equipment; fusing polyethylene (PE) 2406 pipe for the construction, maintenance, and repair of the City's gas utility system; and for assisting in the manual and technical aspects of gas line construction, maintenance, or repair activities. This work requires strict conformance to City of Mesa welding and fusion specifications and procedures, as well as state and federal regulations governing the natural gas industry. An employee in this class must be certified annually in the use of arc welding equipment and PE pipe fusion, and must demonstrate competency at any other time as may be required by the City to be retained in this class. Since much of the work of this class is performed on pressurized lines, there is considerable potential for exposure to hazardous conditions. Welding is usually done in a confined space requiring awkward body positioning and may be performed under a variety of adverse weather conditions. Employees in this class must be certified as PE fusers as well as arc and gas welders. This position is also responsible for performing related duties as required.

**Distinguishing Features:** An employee in this class is required to use appropriate safety equipment and follow safety procedures in performing assignments. This class is subject to emergency call-out and must be available for stand-by, as required. Although welds and fusion joints are inspected by a Gas System Inspector, this class is supervised by a Gas System Crew Leader through observation of work in progress, skill level, productivity, and completed work. This class is FLSA nonexempt.

### **QUALIFICATIONS**

**Employee Values:** All employees of the City of Mesa are expected to uphold and exhibit the City's shared employee values of Knowledge, Respect, and Integrity.

**Minimum Qualification Required.** Any combination of training, education, and experience equivalent to three years full-time employment as an electric arc and oxyacetylene welder; **OR** one year of experience with the City of Mesa as a Field Worker II.

**Special Requirements.** Must possess or be able to obtain certification in Lyco fittings, PE fusion, electric arc, and oxyacetylene welding within three months of employment or promotion into class. Must possess a valid Arizona Class A Commercial Driver's License (CDL) or Commercial Learner's Permit (CLP) with no airbrake restriction by hire date. CLP holders must successfully complete the City's Entry Level Driver (ELD) training program, the Third Party Examiner (TPE) administered skills (driving) test, and obtain a valid Arizona Class A CDL within 150 days of hire or promotion date. Must obtain certification as a gas system operator in accordance with 49 Code of Federal Regulations (CFR) within three months of hire date. Must meet the qualifications to wear a tight fitting respirator by passing a medical evaluation in accordance with CFR 1910.134 by hire or promotion date and must maintain certification.

**Substance Abuse Testing.** This class is subject to Department of Transportation (DOT) drug and alcohol testing as outlined in 49 CFR Part 199 for the Pipeline and Hazardous Materials Safety Administration (PHMSA) AND Part 382 for the Federal Motor Carrier Safety Administration (FMCSA).

**Preferred/Desirable Qualifications.** Certification in Lyco fittings, arc welding, oxyacetylene welding, PE fusion, and experience in layout is highly desirable.

## **ESSENTIAL FUNCTIONS**

**Communication:** Notifies customers of the nature, duration, and cause of gas service interruption, answering questions as necessary, and referring problem customers to crew leader.

**Manual/Physical:** Measures, cuts, and fits steel and PE gas pipe prior to joining by reading and interpreting blueprints and diagrams, and following established gas industry regulatory procedures and guidelines. Assists in installing, maintaining, and repairing gas lines. Monitors welding supplies on crew truck to ensure adequate amounts of gas lines, rods, fittings, etc., are available to complete assigned projects. Operates a motor vehicle or equipment such as: dump truck, crew truck, backhoe, various ½- and ¾-ton or larger trucks, etc., requiring a standard Arizona Class A CDL to service and maintain the City's gas system. Inspects welding and fusing equipment to ensure that it is in safe operating condition. Attaches service tap connections to high- and intermediate-pressure gas mains using electric arc, oxyacetylene, or fusion techniques and procedures as appropriate for the pressure, size, and type (steel, PE) of gas main. Replaces or installs service lines, sections of gas main, valves, etc., as required to construct, maintain, or repair the City's gas system using arc, oxyacetylene, or fusion techniques in accordance with blueprints, diagrams, and project plans following established regulatory procedures and guidelines. Inspects and wraps or coats steel pipe joints, damage areas, and new welds to prevent corrosion. Installs and assists with the installation of saddles, clamps, and emergency repair devices to stop leaks in gas mains and services. Sets barricades and traffic cones in accordance with procedures and crew leader's instructions in order to safely reroute traffic away from the work area. Applies electric arc welding techniques and procedures to install, maintain, and repair gas lines in conformance with gas industry regulatory guidelines and specifications. Lifts and carries heavy (50 - 75 pounds or more) equipment and materials with the assistance of a cart, power winches, or rigging equipment needed to complete work assignments. Works for prolonged periods of time in confined areas and in awkward body positioning under a variety of adverse weather conditions. Works around or uses potentially hazardous materials requiring the use of specialized equipment. Uses non-routine specialized safety equipment when working in confined spaces or dusty locations. Meets scheduling and attendance requirements.

**Mental:** Interprets project plans, blueprints, and diagrams to determine gas line dimensions and placement. Applies oxyacetylene and arc welding techniques and procedures to install, maintain, and repair gas lines in conformance with gas industry regulatory guidelines and specifications. Learns job-related materials in a classroom setting regarding new welding technologies, gas line repairing methods, and safety issues.

### **Knowledge and Abilities:**

Knowledge of:

oxyacetylene welding techniques and procedures as applied to gas line construction, maintenance, and repair;

electric arc welding techniques and procedures as applied to gas line construction, maintenance, and repair;

PE fusion techniques and procedures used in gas line construction, maintenance, and repair;

general procedures for installing, maintaining, and repairing gas lines;  
tools, equipment, supplies, and materials needed for installing, maintaining, and repairing gas lines;  
safety equipment and procedures used when working on and around various utility lines; and  
traffic control procedures and practices utilizing barricades and traffic cones.

Ability to:

work in confined space, use appropriate safety equipment, and follow safety procedures; follow established gas industry regulatory procedures and guidelines;  
annually certify in accordance with American Petroleum Institute (API) 1104 on electric arc and oxygen acetylene welding; and  
interact with coworkers and the general public to establish and maintain effective working relationships.

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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