# EL DORADO IRRIGATION DISTRICT Class Specification

**CLASS TITLE: Layout and Fabrication Welder** 

#### **DEFINITION**

Under general supervision performs project/work assignment layout and related design and fabrication of metal components on various vehicles and construction equipment and system-wide mechanical facilities; and performs welding techniques to install and repair equipment at hydroelectric plants, recreational areas, water and wastewater booster stations, treatment plants and distribution systems.

#### DISTINGUISHING CHARACTERISTICS

This is the journey level class. Employees within this class perform the full range of duties as assigned including skilled design, welding, fabrication, installation and repair work related to metal components and structures. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the work unit.

This class is distinguished from the Senior Layout and Fabrication Welder in that the latter performs the most difficult and responsible types of duties assigned to classes within this series and provides technical and functional supervision over assigned staff.

#### SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from a higher level supervisor or manager; receives technical and functional supervision from the Senior Layout and Fabrication Welder.

**EXAMPLES OF ESSENTIAL DUTIES**: the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.

Assists District personnel regarding project work and selection of appropriate materials and alloys; plans work to complete projects/assignments and performs related layout and design activities; reviews proposed project drawings relative to fabrication and welding requirements.

Designs and fabricates cab and chassis structure requirements on a variety of vehicles and light, medium, and heavy equipment; fabricates material handling structures, tooling requirements, and operator safety items.

Designs, fabricates, and installs mechanical equipment related to the operation of pump stations, regulator stations, booster stations, and pipe galleries; responds to system distribution failures and makes required repairs.

Fabricates and installs securing structures to various tanks, building structures, and hydroelectric spillways; designs, fabricates, and installs metal walkways, staircases, safety railings, and access covers.

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Repairs equipment and vehicle parts, tooling, buildings, fences, and security gates; installs finished projects for water, wastewater, system maintenance, hydroelectric and recreational areas at on-site locations; performs pipeline taps and field welding for construction and maintenance crews.

Keeps and maintains logs of project and maintenance activities; records supply costs chargeable to projects; assists with inventory maintenance and ordering of supplies and materials; stocks utility truck with parts and supplies needed to meet work assignments.

Maintains shop equipment in working order; cleans work and storage areas.

Builds and maintains positive working relationships with co-workers, other District employees and the public using principles of good customer service.

Performs related duties as assigned.

## **QUALIFICATIONS**

### Knowledge of:

Methods, practices, tools and equipment used in the oxyacetylene, MIG, TIG, plasma cutter and electric arc welding trade. Properties and characteristics of various metals. Structural integrity of metals in various shapes and applications in the design, fabrication, and welding of water utility projects. State, Federal and local safety regulations related to access areas, handrails, walkways, and ladders. Practices and procedures for the maintenance and repair of hand and power tools.

#### Skill/Ability to:

Perform a wide variety of skilled welding tasks in the maintenance, repair, modification, and fabrication of equipment parts for vehicles, tools, machinery and District facilities. Use and maintain a variety of welding, hand, power, and shop tools. Estimate cost and availability of materials and equipment needed to complete assignments. Prepare basic records and reports, read and interpret manuals, specifications, drawings, and blueprints, and use shop mathematics to make calculations. Establish and maintain effective working relationships with those contacted in the course of work. Communicate clearly and concisely, both orally and in writing. On a continuous basis, know and understand operations, and observe safety rules; intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; and explain jobs to others. Intermittently, sit while studying or preparing reports; bend, squat, climb, kneel and twist when performing installation/repair of equipment; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of pounds or less.

### Experience and/or Education:

Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

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# Experience:

Two years of responsible skilled metal fabrication and welding experience, preferably in a water utility environment.

## Education:

Equivalent to the completion of the twelfth grade.

# SPECIAL QUALIFICATIONS

# License and Certificate:

Possession of, or ability to obtain, a valid California driver's license at the time of appointment. Individuals who do not meet this requirement due to physical disability will be reviewed on a case-by-case basis.

Possession of a Welding Certificate for Shield Metal Arc Weld Base Metal A53-B.

Director of Human Resources

Established: 08/18/2009 Revised: 05/26/2010 FLSA: Non-Exempt

Unit: Safety