NOTICE OF PROPOSED CLASSIFICATION ACTIONS BY
THE HUMAN RESOURCES DIRECTOR

The following actions are being posted in accordance with Civil Service Rule 109. In the absence of a protest addressed to the Human Resources Director, the proposed changes will become final seven (7) calendar days from the posting date.

Posting No: 48
Fiscal Year: 2015/2016
Posted Date: 11/17/2015
Reposted Date: N/A

AMEND THE FOLLOWING JOB SPECIFICATION(S):
(Job specification(s) attached.)

<table>
<thead>
<tr>
<th>Item #</th>
<th>Job Code</th>
<th>Title</th>
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<tr>
<td>1</td>
<td>9346</td>
<td>Fusion Welder</td>
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Protests on an item should be addressed to the Human Resources Director and can be submitted by mail to the City and County of San Francisco, Department of Human Resources, 1 South Van Ness Ave, 4th Floor, San Francisco, CA 94103 or by email to DHR.ClassificationActionPostings@sfgov.org. All protests must be received in writing no later than close of business seven (7) calendar days from the posting date, and must include the posting and item number(s), the basis on which the protest is submitted and identify the affected parties.

For additional information regarding this proposed classification action, please contact Rich David, Senior Classification and Compensation Analyst, at (415) 557-4965 or by email at Rich.David@sfgov.org.


cc: All Employee Organizations
All Departmental Personnel Officers
DHR – Class and Comp Unit
DHR – Client Services Unit
DHR – Employee Relations Unit
DHR – Recruitment and Assessment Unit
DHR – Client Services Support Services
Micki Callahan, DHR
Michael Brown, CSC
Sandra Eng, CSC
Maria Newport, SFERS
Risa Sandler, Controller/Budget Division
Devin Macaulay, Controller/ Budget Division
Theresa Kao, Controller/ Budget Division
Drew Murrell, Controller/ Budget Division
Alex Koskinen, Controller/ Budget Division
E-File
INTRODUCTION
Under direction, to do work involved in operating an oxyacetylene cutting torch and/or in doing oxyacetylene and electric arc welding; and to do other work as required.

Under general supervision, the essential functions of the position of fusion welder at the Port of San Francisco are to perform skilled journey-level welding, brazing, cutting and burning to repair and fabricate metal parts and equipment in order to maintain boilers, pile-drivers, cranes, structural members, superstructure, infrastructure and heavy construction equipment such as trucks, backhoes, sweepers, forklifts, etc. The fusion welder operates Tungsten Inert Gas (TIG), Metal Inert Gas (MIG), electric arc and oxyacetylene welding equipment and electric burning and arc gouging equipment, and must be able to safely operate an hydraulic press, shear, punch press, drill press, saw and forklift.

The nature of the job requires the fusion welder to work independently, often at heights up to 220 feet from a bos'n chair, in confined spaces, on and around water or from boats. Ability to wear appropriate forms of respiratory protection and pass a medical qualification examination for use of respirators is required.

DISTINGUISHING FEATURES
The 9346 Fusion Welder performs skilled welding work to repair and maintain boilers, structures, boats, vehicles and heavy construction equipment. The 9346 Fusion Welder is distinguished from Class 7360 Pipe Welder in that the latter installs, repairs and maintains water distribution pipelines and related facilities; as well as welds on pressure vessels (high pressure pipelines). It is distinguished from Class 7390 Welder which performs skilled welding work related to the repair and maintenance of facilities, various types of transit vehicles and related equipment.

This class is a journey level position which involves sustained physical effort and exposure to a variety of disagreeable working conditions and inclement weather.

SUPERVISION EXERCISED
None.

MAJOR, IMPORTANT, AND ESSENTIAL DUTIES
According to Civil Service Commission Rule 109, the duties specified below are representative of the range of duties assigned to this job code/class and are not intended to be an inclusive list.

Typical Tasks:
Cuts, shapes, and welds structural steel members; cuts and welds sheets for truck dump
Title: Fusion Welder
Job Code: 9346

bodies, asphalt kettles, and air receivers; builds up worn or broken gear teeth; builds up worn shafts; brazes joints which cannot be welded; welds broken engine crankcases; repairs automobile fenders.

1. Welds, brazes and cuts all types of metals by using different types of welding equipment and rods based on the types of metals and types of welds in order to fabricate new, or repair/ or build up worn/ or broken equipment including boilers, pile drivers, cranes, railroad tracks and structural members.

2. Prefabricates parts by laying out, cuttings and weldings metals for boilers, etc., based on blueprints, by selecting and using the appropriate materials, welding equipment and welding method in order to repair and maintain Port maintenance equipment, vehicles, structural members, superstructure and infrastructure.

- Reads and works from blueprints, plans and shop drawings using welding symbols and job specifications by reading documents in order to fabricate or perform maintenance on various Port equipment.
- Makes all necessary repairs and replacements to superstructure, infrastructure and heavy construction equipment by fabricating, installing, burning and welding in order to repair and maintain Port maintenance equipment, vehicles, structural members, superstructure and infrastructure.

3. Completes new fabrication and installation of metal boats, truck bed modifications, dock ladders, heavy duty truck bumpers, miscellaneous parts for cranes, ramps for boat docks, pile points, utility trailers, street light poles, etc. by laying out material, cuttings by torch or shear, fittings and weldings in order to complete the units by application of stick, TIG, MIG, oxyacetylene, brazing and soldering.

- Inspects, evaluates and repairs crane track alignment and switches by using burning and welding techniques and assisting in their installation in order to maintain continuous availability of Port’s cranes.

4. Fabricates and installs hand rails, ladders and walkways by laying out material, cutting by torch or shear, fitting and welding in order to insure safe conditions for operating and working on cranes, piers and buildings.

- Repairs breaks and cracks by arc gauging and re-welding in order to maintain and keep cranes, heavy construction equipment, train and crane tracks in operational condition.

6. Inspects materials and equipment by checking for cracks or other marks indicating damage or wear, visually and by using magna flux and die check equipment in order to prevent failure of Port’s equipment.

7. Makes detailed shop drawings in order to document characteristics of damage or failures.

IMPORTANT AND ESSENTIAL KNOWLEDGES, SKILLS, AND ABILITIES
Knowledge of: Thorough knowledge of the preheating methods and other precautions necessary to avoid distortion of broken parts when welded; thorough familiarity with the operation of the equipment, tools and methods used in fusion welding; knowledge of the composition of the various ferrous metals and nonferrous alloys and of the fluxes and materials to be used in welding;

Application of various types of welding rods required by the type and weights of metals being welded and the type of weld (e.g. penetration, beveled, fillet, butt) to obtain maximum welded strength and efficiency. Includes knowledge of types of rods and polarities used in each type of welding equipment; AND

Metals, in reference to the composition and properties of various ferrous metals; non-ferrous metals and alloys; and methods of identifying and/or welding them. Includes knowledge of necessary precautions and preheating methods to avoid distortion or breakage of parts when welded; AND

Operations of piledrivers, cranes and boilers refers to a thorough knowledge of construction and operation of all parts to recognize failures (wear and damage) and to repair or replace parts as necessary; e.g. installing and rolling a tube to a boiler; AND

Welding symbols refers to ability to read and draw symbols and work from complex blueprints to perform all types of welding, brazing, cutting and burning; AND

Safety procedures, in reference to proper safety equipment (gloves, goggles) and safe handling of welding equipment. Includes use of safety harness when working at heights, respirators, hearing protection devices, and flotation devices for working on or around water; AND

Ability and Skills and to:

Operate welding equipment in reference to the ability to independently select proper welding equipment based on the job to be done; set up and adjust oxyacetylene, electric arc, MIG, TIG welding equipment, and torch cutting and arc gouging equipment; and set the track, for automatic oxyacetylene machine to make proper cuts; AND

Use magna flux and dye check equipment in reference to the ability to inspect and evaluate materials for checks, cracks or breaks, both in the field and in the shop; AND

Wear respirator or similar personal protective equipment while making repairs to various structures which may cause exposure to lead paint and/or other hazardous fumes by burning and welding as needed to insure safe working conditions; AND

Use and operate hand tools and welding equipment including machines, air compressors, metal shears, drill press, automatic burning machine, air rivet gun, gas forge, air chipping gun, 100 ton press, iron worker punch press and other tools and welding equipment.
Skill to: skill in the operation of an oxyacetylene cutting torch and/or an electric arc in cutting and welding; ability to operate and adjust electric current and portable gas engine powered converters generators; ability to lay out sheet metal work for cutting and welding.

Special personal characteristics: Good eyesight and steadiness of hand.

Operate welding equipment in reference to the ability to independently select proper welding equipment based on the job to be done; set up and adjust oxyacetylene, electric arc, MIG, TIG welding equipment, and torch cutting and arc gouging equipment; and set the track, for automatic oxyacetylene machine to make proper cuts; AND

Use magna flux and dye check equipment in reference to the ability to inspect and evaluate materials for checks, cracks or breaks, both in the field and in the shop; AND

Wear respirator or similar personal protective equipment while making repairs to various structures which may cause exposure to lead paint and/or other hazardous fumes by burning and welding as needed to insure safe working conditions; AND

Read and draw symbols and work from complex blueprints to perform all types of welding, brazing, cutting and burning; AND

Safety procedures, in reference to proper safety equipment (gloves, goggles) and safe handling of welding equipment. Includes use of safety harness when working at heights, respirators, hearing protection devices, and flotation devices for working on or around water; AND

Effectively communicate with other Port staff and others in regards to maintenance needs, safety concerns, and/or other job related issues.

Using and operating hand tools and welding equipment refers to skill in using welding machines, air compressors, metal shears, drill press, automatic burning machine, air rivet gun, gas forge, air chipping gun, 100 ton press, iron worker punch press and other tools and welding equipment.

MINIMUM QUALIFICATIONS

These minimum qualifications establish the education, training, experience, special skills and/or license(s) which are required for employment in the classification. Please note, additional qualifications (i.e., special conditions) may apply to a particular position and will be stated on the exam/job announcement.

Education: Equivalent to completion of the sixth grade supplemented by a course and/or an apprenticeship in fusion welding; and

Completion of a certified three-year Boilermaker’s Apprenticeship Program or Ironworker’s Apprenticeship Program, or Military certification, AND two years of verifiable journey level experience as described below.
Experience: Two years of experience in oxyacetylene and electric arc welding

Or II
Five years of verifiable journey-level welding experience. Experience MUST have included boiler repairs AND the use of ALL the following:

- Tungsten Inert Gas (TIG)
- Metal Inert Gas (MIG)
- Electric arc and oxyacetylene welding equipment
- Electric burning and arc gouging equipment

Some equivalent combination of education and experience.

Additional Desirable Qualifications:
Education equivalent to completion of the ninth grade, supplemented by completion of a course in a trade or technical school; knowledge of applied and plane geometry and of the trigonometry involved in calculations for laying out sheet metal work.

License and Certification:
Possession of a valid California driver’s license (to be presented at time of appointment). When reached for employment, eligibles must be insurable under the Port’s automobile liability insurance. Insurability must be maintained throughout employment.

Substitution:

SUPPLEMENTAL INFORMATION

PROMOTIVE LINES

ORIGINATION DATE: 1931

AMENDED DATE: 4/6/33, 11/XX15

REASON FOR AMENDMENT To accurately reflect the current tasks, knowledge, skills and abilities defined in the most recent job analysis conducted for this job code.
CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF HUMAN RESOURCES

Title: Fusion Welder
Job Code: 9346

BUSINESS UNIT(S): COMMN-SFMTA-SFCCD-SFUSD