PLUMBER
WG-4206-09

METAL TRADES

I. POSITION AND ORGANIZATION INFORMATION

Position:

Plumber, WG-4206-09

Purpose of position:

The primary purpose of this job is to perform the full range of journey level plumbing duties such as installing, repairing, and modifying water supply, sewage disposal, gas distribution, oil lines, and similar utility systems and equipment.

Organization:

Building Trades Br., Mainenance Div.

Organization goals:

The purpose of this branch is to provide emergency and scheduled maintenance and repair services.

II. MAJOR DUTIES

B. Duty (Critical):

Independently installs, modifies, repairs, and maintains a variety of new and existing utility, supply, and disposal systems and equipment such as sewage, water, oil, and gas distribution systems, and water closets, tubs, backflow prevention devices/assemblies, fire sprinkler systems, and showers. Plans and insures the proper slant, slope, fall, or level of installations to provide for proper flow, drainage, and sanitary operating conditions and to prevent backflow vacuum, or air lock conditions. Maintains records and documents actions. (20%)

Tasks:

1. Completes installation, modification and repair of various plumbing systems and equipment, e.g., replaces defective pipes, fittings, fixtures, and valves.

2. Tests and checks completed work for proper drainage, flow, and venting.

3. Prepares records of actions taken and assures documentation is properly signed and coordinated.

Selected Staffing KSAs:

A1, A2, A3, A4, A5, A6, A7

C. Duty (Critical):

Plans and accomplishes work from initial layout to final assembly which involves interpreting and applying building plans, specifications, blueprints, sketches, and other plumbing guides/codes, and using shop mathematics. Locates and taps main lines, sets up system routes, places and cuts route openings, places hangers for proper level and slope, and determines and installs valves, traps, and unions as needed for proper operation of a variety of systems and equipment. Determines tools, parts, equipment, and supplies

needed, including proper types, sizes, and materials. Improvises installations when blueprints and sketches do not provide sufficient information. (20%)

Tasks:

1. Selects the most efficient and effective method, technique, material, device and/or sequence to perform the work following applicable plumbing guides/codes and accepted trade standards.

2. Completes the routing and placement of systems leading to equipment, and properly sets, hooks up, and tests equipment.

3. Measures, fabricates and installs odd size adjoining parts and/or improvises installations when blueprints and sketches do not provide sufficient information.

Selected Staffing KSAs:

A1, A2, A3, A4, A5, A6, A7

D. **Duty (Critical):**

Troubleshoots/tests various plumbing systems and equipment including backflow prevention devices such as reduced pressure principle devices, double check devices, atmospheric vacuum breakers, and other cross connection devices.

(20%)

Tasks:

1. Diagnoses malfunctions in a variety of systems; isolates the problem by checking through the system and makes appropriate repairs and/or modifications.

Selected Staffing KSAs:

A1, A2, A3, A4, A5, A6, A7

E. **Duty (Critical):**

Uses and maintains tools such as tapes, rules, plumb bobs, hand and power pipe threaders, cutters, pipe wrenches, angle drills, hacksaws and power saws, power sewer cleaning equipment, various gas detectors and meters, and lead pots. (20%)

Tasks:

1. Uses, maintains, and accounts for all types of hand and/or power tools as required, to accomplish assigned duties.

Selected Staffing KSAs:

A1, A2, A3, A4, A5, A6, A7

F. **Duty (Critical):**

Utilizes safety practices and procedures following established safety rules and regulations and maintains a safe and clean work environment. Uses and assures proper fit of required safety equipment and clothing. (20%)

Tasks:

1. Operates equipment in a safe manner, applying established safety rules and regulations to minimize minor violations and to avoid major violations due to employee error or negligence.

2. Informs the supervisor of accidents and/or damage to supplies or equipment or of any observed unsafe practices and/or procedures in a timely manner in accordance with established policies and procedures.

Selected Staffing KSAs:

A1, A2, A3, A4, A5, A6, A7

G. Other Work Requirements

1. The employee may be required to work overtime.
2. The employee may be recalled to duty.
3. This position requires the employee to drive a motor vehicle. An appropriate, valid driver's license is required for the position.

III. KNOWLEDGES, SKILLS AND ABILITIES (KSAs)

A. Selected Staffing KSAs:

1. Knowledge of equipment assembly, installation, operation, and repair, to include routing, placement, slant, slope, and fall of systems.
2. Knowledge of technical practices in order to plan, lay out, install, modify, troubleshoot, and repair various systems and equipment.

3. Knowledge of safety regulations, procedures, and practices.
4. . Skill in installing, modifying, and repairing new and existing utility, supply, and disposal systems and equipment without more than normal supervision.
5. Skill and ability in using shop mathematics, measurement, and lay out such as angles, arcs, and circles.
6. Skill in using and maintaining tools and equipment such as rules, levels, plumb bobs, dividers, various gauges and meters, various drain cleaning devices, hydrostatic pumps, and torches.

7. Skill in troubleshooting difficult or hard-to-detect leaks and operating problems.

B. Basic Training Competencies:

1. Knowledge of equipment assembly, installation, operation, and repair, to include routing, placement, slant, slope, and fall of systems.
2. Knowledge of technical practices in order to plan, lay out, install, modify, troubleshoot, and repair various systems and equipment.

3. Knowledge of safety regulations, procedures, and practices.
4. . Skill in installing, modifying, and repairing new and existing utility, supply, and disposal systems and equipment without more than normal supervision.
5. Skill and ability in using shop mathematics, measurement, and lay out such as angles, arcs, and circles.

6. Skill in using and maintaining tools and equipment such as rules, levels, plumb bobs, dividers, various gauges and meters, various drain cleaning devices, hydrostatic pumps, and torches.

7. Skill in troubleshooting difficult or hard-to-detect leaks and operating problems.

IV. CLASSIFICATION FACTORS

Factor 1. Knowledge

1. -- Knowledge of how various supply, disposal, and utility systems and equipment such as water and gas systems, fire sprinkler equipment, and water closets, are installed and operate.

-- Ability to plan and lay out the installation and modification of various systems and equipment, for example, the routing, openings, slant, and level of gas and water lines, and the location and arrangement of water closets, sinks, and fire sprinkler equipment.

-- Ability to interpret and apply building plans and blueprints, use shop mathematics, and lay out such things as angles, arcs, and circles.

-- Skill in the use of any of the accepted trade methods and techniques, such as wiping and pouring lead joints, seating equipment, and installing any combinations of couplings, unions, and joints needed for the proper operation of the systems.

-- Skill in the use of plumbing tools and equipment such as rules, levels, plumb bobs, dividers, various gauges and meters, various drain cleaning devices, hydrostatic pumps, and torches, to make installations and repairs.

-- Skill in independently troubleshooting and repairing difficult or hard to detect leaks and operating problems which require difficult or extensive repair.e

Factor 2. Responsibility

The plumber plans and completes work following the full range of accepted trades practices. Works from work orders, building plans, codes, shop sketches, blueprints, and oral assignment instructions with little or no check during progress or upon completion. The plumber tests and makes needed adjustments to systems and equipment, after completing the work, for proper operation, flow, drainage, and sanitary conditions. Completed work may be randomly checked for timeliness, meeting accepted trade practices, and customer satisfaction.

Factor 3. Physical Effort

The plumber makes repairs and installations from ladder, scaffolding, and platforms, and where the parts of systems worked on are in hard-to-reach places. This requires the employee to stand, stoop, bend, kneel, climb, and work in tiring and uncomfortable positions. The plumber frequently lifts, carries, and sets up parts and equipment that weigh up to 40 pounds unassisted and over 40 pounds with assistance.

Factor 4. Working Conditions

The work is done inside and outside, and is usually dirty, dusty, and greasy. The plumber is sometimes required to make repairs and installations outside in bad weather. Occasionally makes repairs in areas where bad smelling fumes are present. The plumber has occasional exposure to the possibility of broken bones and frequent exposure to the possibility of scrapes, burns, and infections. May be required to wear safety equipment, such as safety shoes, glasses, gloves, and hard hats and other personal protective equipment.

V. CLASSIFICATION SUMMARY

In this position:

Duty B. 20% WG-4206-09 Plumber
Modifies Disposal Systems

Duty C. 20% WG-4206-09 Plumber
Plans Work

Duty D. 20% WG-4206-09 Plumber
Troubleshoots Plumbing Systems

Duty E. 20% WG-4206-09 Plumber
Uses Tools

Duty F. 20% WG-4206-09 Plumber
Utilizes Safety Practices

OPM Job Grading Standard for Plumber, WG-4206, TS-6 dated March 1969

Grade: WG-09