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Maintenance Mechanic 10

WG-4749-10

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I. INTRODUCTION

This position is located

The incumbent serves as a journey level maintenance mechanic.

II. MAJOR DUTIES AND RESPONSIBILITIES

The maintenance mechanic performs a variety of tasks involved in the upkeep of buildings, grounds and related structures, fixtures, and utilities. The duties are performed in at least two trades and at the highest journey level in one of the following: electrical, air conditioning, welding, machinist, automotive mechanic, pipefitting, and boiler plant operator.

III. FACTOR LEVELS

Factor 1: Skill and Knowledge

The trades involved require a knowledge of shop mathematics to plan, compute, and layout projects; the ability to interpret and apply building plans and blueprints; and, skill in the use of tools and equipment common to the trade. Knowledge, skills and abilities in at least two trades, which include:

A. Electrical. Ability to install and operate electrical fixtures, wiring, and controls and read and follow wiring diagrams. Skill in removing and replacing electrical fixtures and controls; making repairs; rearranging old or installing new outlets, relays, switches, and light fixtures; testing circuits; measuring, cutting, and bending wire and conduit to specified lengths and angles. Knowledge of mechanical theory and pneumatic and hydraulic principles to repair electro-mechanical devices.

B. Air conditioning. Knowledge of the principles and theories of the refrigeration cycle, temperature measurement, and refrigerant properties. Skill in constructing, operating, and servicing a variety of domestic air conditioning units and systems, power sources, and cooling units.

C. Heating Equipment. Knowledge of standard methods of combustion, heat transfer principles, and fuel characteristics to install, repair, and maintain heating boilers and domestic heating units and systems; knowledge of heating surfaces, combustion chambers, and the various heat circulating methods; knowledge of pneumatics, electricity, and basic electronics; familiarity with the construction and operating characteristics of heating systems; skill in determining the condition of system parts and components to make repairs or replacements; skill in installing, aligning, adjusting, and repairing oil, gas, and coal burners and other burning mechanisms; skill to perform routine maintenance.

D. Welding. Knowledge of welding standards and how various metals and alloys react to different welding processes and techniques; skill to make welds that require complete penetration and fusion of base and filler metals; knowledge of several related trade procedures.

E. Machinist. Skill to perform the full range of operations on most types of conventional machine tools and their various attachments; knowledge of the machinability of numerous metals and other materials, and proper tools

to produce the desired cuts and surfaces on each material; skill in use of many types of precision measuring instruments and equipment.

F. Automotive Work. Knowledge of the makeup, operation, and installation of complex major systems and assemblies to troubleshoot and repair a variety of systems or to rebuild one or more systems such as gasoline and diesel engines, automatic and manual transmissions, etc.; knowledge of the repair of hydraulic lifting, loading, turning, and positioning systems; ability to troubleshoot and replace standard electronic components of systems; ability to determine how far major components should be torn down, what parts and mechanisms can be reworked and refitted or should be replaced with new parts, and the type and extent of adjustment and alignment required.

G. Plumbing. Knowledge of the installation and operation of various supply, disposal, and utility systems and equipment, such as water and gas systems, fire sprinkler equipment, and water closets.

H. Pipefitting. Knowledge of how various high-pressure piping systems and equipment are installed and operate; ability to plan and lay out the installation, modification, and repair of various new and existing piping systems and equipment.

I. Carpentry. Knowledge of wood, wood substitutes, and construction techniques; skill in the operation of general and precision carpentry and woodworking equipment to produce the requested finished product; ability to interpret complex instructions, sketches, blueprints, and building codes.

J. Painter. Skill in accepted surface preparation and coating methods and techniques; skill in matching, tinting, toning, and blending coating materials and agents. Ability to read and apply directions to the mixture, use and apply various materials, solvents, and precoating agents.

K. Boiler Plant Operator. Knowledge to maintain constant observation of flowmeters and charts to determine amount of steam produced and if it meets the demands or exceeds them, amount of fuel used and evaporated; knowledge to adjust firing controls fuel feeds and air drafts to get the best combustion efficiency; ability to operate auxiliary equipment; ability to test for things such as acidity, causticity, and alkalinity, and to determine the amount of chemicals to be fed into the boilers.

Factor 2: Responsibility

The incumbent works under the guidance of the supervisor and/or work leader. The supervisor assigns work orally or through work orders, building plans, and blueprints. Minimum direct supervision is received and incumbent determines the extent of repairs, modifications, and installations needed and exercises judgment in selecting the methods, techniques, and procedures to use in completing assignments. The incumbent makes complete and difficult determinations of materials and methods to be employed. The incumbent tests and makes needed adjustments to work. The supervisor or higher level mechanic gives advice on unusual problems. A high degree of precision is required in all areas of work. Guides for proper completion of assignments include work orders, oral instructions, blueprints, sketches, specifications, and accepted trade practices and standards. Work is checked upon completion to see that it meets accepted trade standards and is completed in a timely manner.

Factor 3: Physical Effort

The work requires a considerable amount of standing, stooping, bending, kneeling, climbing, and working in tiring and/or uncomfortable positions. The incumbent may work from ladders and scaffolding. When operating equipment, the worker may be under a great deal of strain from constant reaching, bending, turning, and moving of hands, arms, feet, legs, and by the vibration and jerking of the equipment. The incumbent carries, lifts, and handles parts and equipment weighing up to 50 pounds and may occasionally exceed 50 pounds.

Factor 4: Working Conditions

The work is performed inside and outside with exposure to all kinds of weather. The work area maybe dirty, wet, dusty, and greasy, with inadequate lighting, heat, or ventilation. Incumbent is subject to cuts, abrasions, burns, broken bones, electrical shock, infections, bites, exposure to inhalation or harmful chemical fumes, irritation of eyes, skin and respiratory tract, and the hazards of operating power tools and equipment. Discomfort is encountered when wearing protective clothing, gloves, or eye goggles.

This position is non-exempt from coverage under the FLSA.

IV. UNIQUE POSITION REQUIREMENTS

(Last Updated: October 19, 1994)

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