

POWER PLANT MECHANIC

DEFINITION

To perform skilled mechanical work related to the operation, maintenance, and repair of electric utility power plant engines and mechanical equipment; to maintain the power plant automated maintenance management system; and to maintain a parts/supplies inventory to ensure adequate materials to meet needs.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Power Plant Operations and Maintenance Supervisor; may receive technical and/or functional supervision from the Power Plant Engineer.

May provide technical supervision to technical staff, as appropriate.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

Perform corrective and preventive maintenance on power plant equipment such as gas turbine engines, steam turbines, diesel engines, generators, heat recovery steam generators, gas compressors, air compressors, motors, pumps and related electric utility equipment.

Recognize, identify and correct problems on rotating equipment, boilers and auxiliary equipment; make recommendations related to the repair or replacement of defective mechanical and electrical equipment.

Conduct equipment vibration analysis on electric systems and pumps; take and analyze oil samples and maintain adequate fluid levels; inspect system for leaks, broken, or worn parts and correct or replace as needed; monitor and check converters related to boiler feed water pumps and ensure consistency/uniformity of fittings and connections.

Plan and coordinate with City staff, contractors, vendors, or consultants regarding complex and/or large maintenance projects; use automated design/drafting programs to prepare related layout drawings.

Prepare work orders and other documentation for required work permits especially as related to working with live/active equipment and systems.

Maintain a parts/supplies inventory to ensure adequate materials to meet needs; request parts and supplies to perform work; receive, unload and safely store parts and supplies at the plant.

Prepare documentation and reports and maintain logs and records related to work performed, supplies used and other plant mechanical control and operational matters.

Make recommendations regarding plant operating efficiency; perform routine housekeeping tasks to ensure a safe work environment, as needed.

May perform specialized welding tasks and/or recommend contracting for such tasks.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer service.

Perform related duties as assigned.

### MINIMUM QUALIFICATIONS

#### Knowledge of:

Principles and practices of the maintenance and repair of mechanical and electrical systems.

Electric utility operations and procedures

Methods, procedures, materials and tools used in the maintenance and repair of equipment used in an electric utility.

Pertinent local, State and Federal rules, regulations and laws, especially as related to working in an electric power plant.

Modern office procedures and computer equipment, including computer aided design (CAD).

Safe work practices.

Department policies and procedures.

Principles and procedures of record keeping.

#### Ability to:

Independently perform skilled mechanical work related to the operation, maintenance, and repair of electric utility power plant engines and mechanical equipment.

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; reach, bend, squat, climb, kneel and twist when repairing or working on equipment; climb ladders/stairs and work at considerable heights up to 80 feet; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 50 pounds or less.

Identify mechanical and equipment system problems and recommend and/or take appropriate actions; read and interpret gages and recording devices related to combined cycle power plant operations.

Use equipment and tools appropriate to the repair and maintenance of an electric utility power plant.

Read and interpret a variety of written materials including operating and maintenance instructions, procedures manuals, blueprints and drawings, equipment specifications, and vendor service manuals.

Prepare written reports and correspondence; maintain files and records related to maintenance activities.

Work assigned shift schedules; be available for call-back and on-call assignment.

Work unusual and prolonged work schedules during emergencies, seasonally-caused circumstances in varying weather and temperature conditions.

Communicate clearly and concisely, both orally and in writing

Establish and maintain effective working relationships with those contacted in the course of work.

### Experience and Training

#### Experience:

Two years of responsible experience performing maintenance and repair of mechanical, electrical and rotating equipment in an industrial processing plant environment such as an electric utility, chemical plant, or oil refinery.

AND

#### Training:

Equivalent to completion of the twelfth (12<sup>th</sup>) grade, GED, or higher level degree. Additional specialized trades training related to mechanical and electrical rotating equipment is desirable.

License and Certificate

Possession of a valid California driver's license by date of appointment.

07-03-18

02-09-13

09-10-05      Power Plant Mechanic