

Summary of Duties: Oversees and participates in the operation of steam-electric generating equipment from remote control boards and from the actual location of equipment such as turbines, generators, high-pressure boilers, gas turbines, auxiliary equipment and electrical switching facilities; or supervises all phases of steam electric generating station control operation and running maintenance activities performed by operating personnel on a designated shift; and does related work.

Distinguishing Features: A Steam Plant Operator regulates the control of boilers, turbines, generators, and auxiliary fluid cycles to generate electric power. An employee in this class controls the operation of a steam-electric generating plant from a centralized control room, or a control unit located on the plant site. An employee may also be assigned to perform running maintenance on generating equipment outside the control room. A Steam Plant Operator monitors indicating devices that reflect system operation, and manipulates controls necessary to start, operate, or shut down power plant equipment.

Employees normally work near high-temperature, high-pressure, and energized equipment.

An employee in this class must be constantly alert to detect any signs of trouble or failure in the equipment or systems which are under the operator's responsibility and to adopt quick and effective courses of action should such situations occur. Failure to do this could result in extensive damage to equipment, injury to other employees, and in serious interruption of electrical services. A Steam Plant Operator works under general supervision and may direct the work of, and provide functional supervision and training to Steam Plant Assistants and other Steam Plant Operators.

A Steam Plant Operating Supervisor supervises all phases of steam-electric generating station operation activities performed by operating personnel on a designated shift.

Examples of Duties: Steam Plant Operator: Operates a steam-electric generating station control board for main generating equipment such as boilers, turbines, generators, transformers, switchyard, and related auxiliary equipment; determines necessary settings and adjusts controls of generating equipment for desired operating conditions and synchronizes equipment with the system; directs and provides functional supervision and training to Steam Plant Assistants; receives and executes orders from electric system Load Dispatchers relative to load, voltage, frequency and switching required; prepares switching orders which include procedures for accident prevention tagging and handling high voltage equipment; continually scans and monitors dials, gauges and recorders which indicate load, amperage, and voltage levels, boiler water levels, steam pressure and temperature, steam, feedwater, air and fuel flow, stack emissions, and boiler and turbine metal temperatures;

Issues clearances on station equipment to insure safety of personnel performing maintenance and repair work; safety tags equipment for preventive maintenance;

prepares work progress reports, and maintains a log of shift operations; exercises local control of equipment on which remote controls become inoperative.

Steam Plant Operating Supervisor: Supervises the operating employees of an assigned shift at a steam-electric generating station engaged in the control and operation of equipment such as boilers, turbines, generators, transformers, switchyard, and related auxiliary equipment;

Supervises the preparation of records and reports on such matters as fuel use and receipt, power production, water use and treatment, boiler stack emissions, waste water disposal, and equipment performance; makes studies and written or oral reports on general plant performance, additions and changes to equipment, and operating methods; prepares recommendations for electrical and mechanical overhaul;

Supervises training and orientation programs for operating personnel; and maintains up-to-date training folders on all steam plant operating and maintenance personnel.

Both Classes: May occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications:

	Steam Plant Operator	Steam Plant Operating Supervisor
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Knowledges:

Types, principles, and terminology of operation of steam-electric generating systems;	Good	Good
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Operating methods and practices of equipment and machinery used in both the the steam and electrical phases of steam-electric generating plants, including turbogenerator units, burners, turbines, pumps, and fans;	Good	Good
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	Steam Plant Operator	Steam Plant Operating Supervisor
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Knowledges:

Principles and methods of operating high-pressure oil and gas-fired boilers and of the methods employed in determining and obtaining efficient combustion;	Good	Good
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Hazards involved and safety precautions required in working near,

and operating steam-electric generating equipment, including energized circuits and high voltage equipment;	Good	Good
Principles, procedures, and practices of remote control and manual switching operations of main unit generating and auxiliary equipment in a steam-electric generating plant;	Good	Good
Mechanical principles including lubrication, friction, and forces including the operating of pumps and fans;	Good	Good
Use of wet steam, dry steam, liquids, and saturates, including the conversion of liquid to gas by combustion;	Good	Good
Department of Water and Power regulations and procedures governing plant operation, switching, and the securing of clearances;	Good	Good
Systems Operating Orders, unit logs, Faulty Equipment Reports, safety logs, including procedures for tagging, handling high voltage equipment, guidelines for clearances, preventive maintenance and isolation equipment jurisdiction;	Good	Good
Electricity as it relates to steam plant generation, including the rudimentary knowledge of the operation of transformers and switching procedures;	Working	Good
	Steam Plant	Steam Plant Operating
<u>Knowledges:</u>	<u>Operator</u>	<u>Supervisor</u>
Hazardous materials involved in steam plant operation, and the storage and handling of those materials;	Working	Good
Laws and regulations related to equal employment opportunity and affirmative action;		Working

Plant Procedures Manual as it relates to proper conduct, attendance, leaves of absence, disciplinary matters, and first aid; Working

City personnel rules, policies and procedures; General

Memoranda of understanding as they apply to subordinate personnel; General

<u>Abilities:</u>	Steam Plant Operator	Steam Plant Operating Supervisor
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Communicate orally with crew members and others regarding operating conditions;	X	X
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Follow written and oral instructions and established procedures;	X	X
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Read and interpret precision recording instruments, including valves, piping equipment, gauges, dials, controls, relays, switches and trips, and to record information noted;	X	X
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Detect irregularities in the operation and functioning of machinery and equipment by inspection or review of operating records and reports;	X	X
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<u>Abilities:</u>	Steam Plant Operator	Steam Plant Operating Supervisor
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Analyze emergency situations and to adopt quick, effective, and reasonable courses of action;	X	X
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Instruct operating personnel in the proper performance of duties and in observance of safety precautions.	X	X
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Deal tactfully and effectively with subordinates and other employees; X X

Prepare reports of operating activities; X X

Supervise the work of subordinates engaged in the operation of steam-electric generating equipment. X

Three years of full-time paid experience as a Steam Plant Assistant, one year of which shall be as a plant equipment operator in the independent operation and inspection of mechanical and electrical equipment at a steam-electric generating plant is required for Steam Plant Operator.

Three years of full-time paid experience at the level of Steam Plant Operator in the operation of boilers operating at no less than 900 psigi, turbines, generators and auxiliary equipment is required for Steam Plant Operating Supervisor.

Licenses: A valid unlimited steam engineer's license issued by the Los Angeles City Department of Building and Safety is required for Steam Plant Operating Supervisor. A valid California driver's license and good driving record may be required.

Physical Requirements : Both Classes: Strength to perform average lifting up to 25 pounds and occasionally over 50 pounds; arm, hand, and finger dexterity with both hands involved in activities such as reaching, handling, and feeling; good speaking and hearing ability; and good eyesight and color perception.

Persons with medical limitations may, with reasonable accommodations, be capable of performing the duties of some of the positions in this class. Such determination may be made on an individual basis in light of the person's limitations, the requirements of the position, and the appointing authority's ability to effect reasonable accommodations to the person's limitations.

As provided in Civil Service Commission Rule 2.5 and Section 4.5 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what the duties and responsibilities of any position shall be.