

Stationary Engineer

Task Statements

1	Operate various heating, ventilation, and air conditioning (HVAC) equipment in accordance with established manufacturer's recommendations, to ensure properly functioning building systems.
2	Maintain and repair various heating, ventilation, and air conditioning (HVAC) equipment in accordance with established manufacturer's recommendations, to ensure properly functioning building systems.
3	Operate elements (e.g., boilers, heaters, pumps, valves, pipes, steam traps, heat exchangers) used in the distribution of steam, heated, or processed water using hand and power tools, to ensure facilities remain operational.
4	Maintain and repair elements (e.g., boilers, heaters, pumps, valves, pipes, steam traps, heat exchangers) used in the distribution of steam, heated, or processed water using hand and power tools, to ensure facilities remain operational.
5	Operate refrigeration elements (e.g., compressors, condensers, evaporators, traps, transfer pumps, expansion valves) using hand and power tools to ensure proper operation of refrigeration equipment.
6	Maintain and repair refrigeration elements (e.g., compressors, condensers, evaporators, traps, transfer pumps, expansion valves) using hand and power tools (e.g., leak detectors, pressure gauges, vacuum pumps) to ensure proper operation of refrigeration equipment.
7	Maintain and repair various types of pipe insulation, ensuring proper safety precautions, to ensure buildings operate efficiently.
8	Operate air compressors and distribution lines using hand and power tools to ensure proper functioning of air control systems throughout the facility.
9	Maintain and repair air compressors and distribution lines using hand and power tools to ensure proper functioning of air control systems throughout the facility.
10	Operate natural and manufactured gas distribution lines, including valves and control devices, using hand and power tools to ensure proper gas distribution throughout the facility.
11	Maintain and repair natural and manufactured gas distribution lines, including valves and control devices, using hand and power tools to ensure proper gas distribution throughout the facility.
12	Operate all water distribution elements (e.g., filters, softeners, piping, pumps) using appropriate plumbing tools to ensure water systems functions properly.
13	Maintain and repair all water distribution elements (e.g., filters, softeners, piping, pumps) using appropriate plumbing tools to ensure water systems functions properly.

14	Operate elements (e.g., motor, engine) used to power pumps, compressors, generators, and fans using hand and power tools to maintain proper building operations.
15	Maintain and repair elements (e.g., motor, engine) used to power pumps, compressors, generators, and fans using hand and power tools to maintain proper building operations.
16	Operate water and sewage systems using hand and power tools to ensure Occupational Safety and Health Administration (OSHA) standards are met and to maintain facility operations.
17	Maintain and repair water and sewage systems using hand and power tools to ensure Occupational Safety and Health Administration (OSHA) standards are met and to maintain facility operations.
18	Maintain and repair electrical elements (e.g., transformers, motors, machinery fixtures, appliances, panels, variable frequency drives, generators) using standard electrician tools to ensure elements function properly and to maintain facility operations.
19	Maintain and repair single-phase and multi-phase electrical circuits using appropriate electrician tools (e.g., voltage tester, continuity tester) to ensure circuits function properly and to maintain facility operations.
20	Maintain and repair electronic systems (e.g., clocks, closed circuit television, lighting, alarm/security system) using standard electrician tools to ensure systems function properly and to maintain facility operations.
21	Prepares, welds and/or solders materials using various tools and/or equipment (e.g., arc weld, acetylene torches, oxygen acetylene torches) as needed to maintain functionality of building systems.
22	Calibrate control systems for air conditioning, refrigeration, heating, and ventilation systems by physically aligning settings to the designed parameters to maintain proper facility temperature and ensure building systems function efficiently.
23	Program automated building systems using appropriate software applications to ensure building systems function efficiently.
24	Start and/or stop generators, auxiliary equipment, turbines, or other power plant equipment as necessary for operational functions as well as health and safety of staff and the public in State facilities.
25	Operate and maintain fluid and electronic testing and measuring instruments, (e.g., manometers, air flow, liquid flow meters, volt meters, amp meters, potentiometers, gauges) using various tools and/or equipment in accordance with established manufacturer's, federal, state and/or local statutes to maintain functionality of building systems.
26	Operate required motorized equipment to perform day-to-day activities at worksite and/or remote locations to ensure building systems operate efficiently.
27	Monitor the operating pressure and temperature of equipment using gauges and computerized building automation systems to ensure equipment is functioning safely and efficiently.

28	Inspect and evaluate electrical and mechanical systems and equipment visually, tactilely, and/or audibly to identify needed repairs and maintain facility operations.
29	Perform minor building maintenance and repair as needed to ensure building systems function properly.
30	Monitor all building systems following established guidelines and industry standards using computer software (e.g., Microsoft Office) to ensure all systems' warranties and contracts are current.
31	Assist other trades with repairs required within state facilities (e.g., bathrooms, kitchen, swimming pools) using work order requests and as directed by facility management.
32	Analyze complexity of system issues to determine when it's appropriate to elevate a problem to the supervisor or an outside contractor.
33	Read and interpret drawings, blueprints, and schematics for operation and troubleshooting purposes to ensure work duties are performed according to specifications.
34	Monitor resources (e.g., parts, supplies, equipment) to determine replacement needs to maintain facility equipment supply.
35	Advise management of equipment and material needs at the facility to utilize resources appropriately and efficiently.
36	Prepares various forms (e.g., manifests, work orders, purchase orders, service orders, cost estimates, planned activity lists, schedules, work plans) to document work activities and ensure the facility operates efficiently.
37	Calculate system requirements to provide estimates for modification or replacement of systems to ensure efficient utilization of department resources.
38	Maintain tools, equipment, and inventory in a safe, organized manner in order to maintain functionality and continuity of work in accordance with departmental policies and procedures and the Occupational Safety and Health Administration (OSHA) requirements.
39	Maintain records (e.g., job costs, daily time records, equipment history, scheduled services) using computer software and/or check list to ensure accurate record keeping of activities.
40	Utilize and maintain a comprehensive preventive maintenance program for mechanical equipment in order to ensure preservation of departmental property/equipment.
41	Receive and verify supplies and complete all necessary paperwork to maintain needed equipment, tools and supplies per departmental procedures.
42	Ensure all repair/maintenance work conforms to Occupational Safety and Health Administration (OSHA) standards and departmental standards for safety and health.

43	Inspect and evaluate all building systems to minimize energy waste and promote energy conservation by ensuring proper operating procedures and system integration according to guidelines established by California Environmental Protection Agency and the California Energy Commission.
44	Respond to emergency calls (e.g., power outages, flooding, fire, vandalism) using various methods, tools and/or equipment (e.g., telephone, cell phone, radio, in person, motor vehicle) to coordinate and/or assist with needed services and ensure building preservation and operation.
45	Respond to fire alarms, flow alarms, bells, lights, pull stations, etc., within and surrounding State facilities to assess the situation and take appropriate action to ensure safety of residents, staff, and the public.
46	Analyze water samples and treatments for all heating, ventilation, and air conditioning (HVAC) equipment to ensure compliance with State and Federal health and safety requirements in order to protect the health and safety of the public/employees and protect/extend the life of equipment and systems.
47	Conduct visual inspections of work site to identify potential health and safety hazards and to ensure worksite compliance with established safety rules and regulations.
48	Follow safety plans and procedures for facilities to ensure safety of personnel and proper building operation, preservation, and safety.
49	Review Material Safety Data Sheets (MSDS) to ensure safety precautions and safe handling procedures are observed during the completion of projects.
50	Participate in safety meetings and training to ensure proper procedures are followed during the completion of work projects.
51	Provide written information to supervisors, co-workers, and subordinates by email, written directions, or notes to communicate information about projects or to address departmental needs.
52	Provide information by verbal or other means to supervisors, co-workers, and subordinates by telephone or in person to communicate information about projects or to address departmental needs.
53	Prepare written reports to document repairs, maintenance issues, and system functions etc. using word processing software (e.g. Microsoft Word) for distribution to various entities (e.g., departments, county, contractors) in accordance with departmental guidelines.
54	Create records of actions (e.g., logs, field notes, measurements) taken to resolve work orders in accordance with departmental guidelines.
55	Compile records (e.g., billing, safety, training) to provide information for departmental use and ensure compliance with State and Federal laws and regulations and departmental policies and procedures.
56	Advise the supervisor in the selection and procurement of work materials, tools, and equipment on an on-going basis, to provide information for planning purposes and meet the needs of the facility.

57	Coordinate with others (e.g., staff, resident workers, contractors, vendors) regarding work projects, preventative maintenance and repairs of facilities to ensure work is completed effectively and efficiently and in compliance with State and Federal laws and regulations and departmental policies and procedures.
58	Communicate in a professional and effective manner at all times with supervisors and others (e.g., state employees, inspectors, vendors, resident workers, contractors) to provide and obtain information.
59	Lead and instruct work crews on the installation of building/facility systems to ensure efficiency, quality standards, and adherence to deadlines.
60	Work with crews on the installation of building/facility systems to ensure efficiency, quality standards, and adherence to deadlines.
61	Lead and instruct crews to repair and maintain building/facility systems to ensure efficiency, quality standards, and adherence to deadlines.
62	Work with crews to repair and maintain building/facility systems to ensure efficiency, quality standards, and adherence to deadlines.
63	Prioritize the work to be completed by a work team or project task force to ensure efficiency, quality standards, and adherence to deadlines.
64	Develop plans (i.e., materials needed, possible problems/delays, safety precautions, notifications to internal/external stakeholders) for long-term and short-term projects to ensure timely and efficient completion.
65	Evaluate and prioritize the handling of problems or issues impacting the progress of work projects or assignments to determine impact and assess alternatives for resolution.
66	Maintain project schedules by updating and revising activity and milestone schedules, resource requirements, and other task-related information to ensure accurate, updated project information and statistics.
67	Attend training seminars/classes on electrical systems, maintenance techniques, and installation requirements of building facilities as directed by management and in accordance with departmental guidelines.
68	Attend various training courses [e.g., asbestos, Leadership for Environment & Development (LEAD), Cardio Pulmonary Resuscitate (CPR), Chloro-fluorocarbons (CFC) certifications, Hazardous Waste Operations and Emergency Response (HAZWOPER)] to protect the health and safety of the environment, buildings, residents, staff, and/or public, and to keep abreast on current information.
69	Instruct skilled or unskilled assistants in the operation, maintenance, and repair of heating, ventilation, and air conditioning HVAC systems, mechanical systems or other related systems within State facilities as directed by management.
70	Provide on-the-job training, instruction and coaching to workers on the proper method and process necessary to carry out work assignments for improved performance and productivity.