1. Operates and services high pressure, high temperature, hot water and steam boilers, preheaters, vacuum and condensate systems, valves, pumps, and other boiler room machinery and equipment.

2. Fires automatic and manual, natural and forced draft boilers, which includes adjusting fuel and air ratios, regulating water levels, adjusting steam flow, and lighting burners with automated or manual methods in order to ensure safe and efficient boiler operation.

3. Secures automatic and manual, natural and forced draft boilers by shutting off fuel, turning off main stop valve, maintaining system steam flows, water levels, steam pressure and temperature, ensuring safe boiler shut down.

4. Performs steam boiler and related equipment operating inspections, including testing boiler safety equipment, reviewing temperature and pressure logs, and visually inspecting equipment such as controls, valves, and auxiliary pumps, to insure optimal equipment operation.

5. Tests boiler water chemistry and corrects for hardness, suspended solids, hydrogen ion concentration, and for phosphate and carbonate content.

6. Tests cooling tower water (e.g., chlorine, hydrogen ion concentrations, pH conductivity, hardness), and interprets test results and makes proper adjustments to fall within accurate parameters.

7. Tests chilled and hot water systems for corrosion inhibitor, and interprets test results and makes proper adjustments to fall within accurate parameters.

8. Repairs boilers and related equipment, to include cleaning boiler internals and preparing them for inspection, cleaning boiler burners, tubes, and strainers, repacking and replacing valves, checking for and repairing leaks, replacing pipes if necessary, cleaning and repacking sight glasses, checking steam straps, and related fittings.

9. Checks, replaces, and adjusts fan belts, cleans screens, lubricates bearings, replaces defective bearings, changes filters, cleans coils, and takes differential pressure readings to ensure proper operation of ventilation equipment.

10. Operates, lubricates, maintains and replaces parts, and performs both major and minor repairs on large air conditioning refrigeration compressors, condensers, evaporators, cooling towers, pumps, electronic and pneumatic controls, heat exchangers, package units, and water softeners.

11. Regenerates water softeners, including adjusting water flow timing, renewing brine solution, and washing out the softener.

12. Maintains proper refrigerant charge in refrigeration units.
13. Keeps logs and records of operations, including temperatures, pressures, water, and fuel consumed, power consumed and co-generated, meter readings, maintenance work performed, emergency generators, underground storage tanks, and Air Quality Management District reports.

14. May be responsible for the operation and maintenance of building service equipment in outlying buildings.

15. May perform miscellaneous minor emergency trouble shooting on piping and plumbing fixtures, electrical equipment, and refrigerated air conditioning units.

16. Tests the running of emergency equipment such as generators, fire pumps, air conditioning equipment, and power supplies in order to assure systems will function when needed.

17. Monitor and operate fire, life safety, and emergency management computers.

18. Responds to fire alarms by notifying appropriate agency and/or responding to investigate fire alarm incident.

19. Inspects maintenance work in progress and upon completion for conformance to standards and for satisfactory operation of the units.

20. Inspects building service equipment to determine repair needs.

21. Makes records of equipment operation, installation, and maintenance work performed and of materials, supplies, and equipment used.

22. Escorts vendors during testing and maintenance of fire and life safety equipment, alarm systems, and computer based control systems.

23. Requisitions tools, materials, and supplies.

24. Performs operations in a central control room setting including monitoring data received from remote locations, controlling equipment, responding to occupant complaints to ensure effective building systems operations.

25. Monitors and operates computer based building control systems.

26. Performs mathematical conversions, such as cubic feet per minute to pounds per hour, gallons per minute, and horsepower conversions in order to calculate usages, determine efficiency, and make reports to outside agencies.

27. May perform miscellaneous minor emergency trouble shooting on special equipment (e.g., small office equipment, vacuum, lamp).