March 14, 2022

The University of British Columbia
Standard Job Description: Shift Team Leader EWS

JOB SUMMARY

UBC Energy and Water Services oversees the overall management of energy and water at the UBC Vancouver Campus, working within a mandate of fiscal efficiency, operational excellence, environmental sustainability and innovative demonstrations. EWS thermal plants are comprised of multiple thermal energy systems, ranging from conventional gas-and-oil-fired thermal boilers to biomass thermal boilers involving wood gasification technology and conventional wood-burning thermal boilers.
future. The Shift Team Leader is responsible for the supervision of all power engineers working in EWS Thermal Energy Plants and UBC and contractor personnel working in the respective thermal plants. In the extended absence of the People and Process Manager – Thermal Plants (Chief Engineer), the Assistant Chief Engineer, the Shift Team Leader may be required to exercise responsibility and duties as acting Chief Engineer. They may be required to acknowledge site wide campus building alarms using the Building Management System. The Shift Team Leader shall adhere to the directives, rules, and regulations set by relevant provincial regulations and UBC policies and procedures. This includes thermal Plant Operating Instruction and Guidelines and thermal plant operating procedures
EWS thermal plants are comprised of multiple thermal energy systems, including conventional gas-and-oil-fired thermal boilers to biomass thermal boilers involving wood gasification technology and conventional wood-burning thermal energy boilers.

Equipment within their operational expertise and responsibility include fuel material handling systems, boilers systems and related auxiliary systems, combustion and process controls, power generation through internal combustion engines and power synchronization systems, ash handling and disposal systems, compressed gas systems, hydraulic systems, water treatment systems, flue gas conditioning systems and emission control systems.

When operating an EWS thermal energy plant remotely or on site, under direction from People and Process Manager – Thermal Plants (Chief Engineer) and/or the Assistant Chief Engineer, the Shift Team Leader assumes responsibility for the safe and efficient operation of all plant equipment. They are responsible for the safety of UBC and contractor personnel working in the EWS thermal plant areas of operation.

ORGANIZATIONAL STATUS

The Shift Team Leader receives direction and supervision from the People and Process Manager – Thermal Plants (Chief Engineer) and/or the Assistant Chief Engineer .As per the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation, the Shift Team Leader, as the person-in-charge of the plant, is “the power engineer, operator or other individual present on the premises during a period of time, and designated by the owner or chief engineer to be responsible for and in control of the plant while it is in operation.” They are also the person in charge of a plant under the supervision of the People and Process Manager – Thermal Plants (Chief Engineer) or the Assistant Chief Engineer or one who is in charge of a plant when the People and Process Manager – Thermal Plants (Chief Engineer) and the Assistant Chief Engineer are absent from the thermal energy plant.

When present for work at a EWS Thermal Energy Plant, but not designated as a Shift Team Leader for the shift, the individual will work with the designated Shift Team Leader to operate and maintain the plant. There will be no change in pay.

If there is an absence of an EWS Power Engineer and the need for an EWS Power Engineer is deemed necessary by the People and Process Manager – Thermal Plants (Chief Engineer), a Shift Team Leader may be called in to take on the duties of an EWS Power Engineer for a shift (or part of a shift). There will be no change in pay.

When manning the CEC or any other EWS thermal energy plant, the Shift Team Leader may assume delegated responsibility for the safe and efficient operation of all plant equipment at the CEC. They may be delegated responsibility for the safety of UBC and contractor personnel working in the CEC process plant areas of operation. There will be no change in pay.

WORK PERFORMED

1. Performs routine inspections, operation and maintenance of all systems and equipment related to the safe, reliable, and efficient operation of equipment in EWS Thermal Energy Plants. This includes ensuring processes and equipment are operating on target and/or at peak performance.
2. Participates with, supervises, directs, and assigns daily maintenance and plant operation activities for personnel under their charge in the UBC Thermal Energy Plants.
3. Completes log-book, log-sheet, round sheet, lock-outs of equipment, digital checklists, and Work Orders as required. These can be in a variety of formats, including digital and written. This includes recording operating, maintenance, and safety conditions.
4. Effectively communicates and responds to emails, phone calls, and text messages as required. Using communication devices (radios, cell phones, etc.) as required.
5. Responsible for the operation and maintenance of water treatment system which include daily water testing, logging data, adjusting chemical feed and adjusting blow-downs, and setting Deaerator vents as required.
6. Reports on system and equipment defects with recommendations and solutions to the Assistant Chief Engineer and Management.
7. Assists in the training of thermal plant personnel in the operation and maintenance of equipment.
8. Responsible for the safe start-up, shutdown, and lockout of thermal equipment for maintenance or repair related to the operation and maintenance of the thermal plant.
9. Communicates carryover conditions to the relieving shift team.
10. Troubleshoots and maintains all equipment within the scope of a Power Engineer 3rd Class.
11. Physically maintains the process flow of the plant, which may include visual\mechanical inspections as well as unplugging of conveyors, transfer points, ash handling systems and flue gas treatment systems, and liquid and gas fuel systems.
12. Effectively communicates and responds to emails, phone calls, and text messages as required. Using communication devices (radios, cell phones, etc.) as required.
13. Trouble-shoots all process and instrumentation control pertaining to the operation of UBC EWS energy plants.
14. Supervises and participates in confined space entry, and related duties, as required.
15. Maintains up-to-date certification and practice skills provided by the courses and training identified in the Energy and Water Services training matrix,
16. Using a PC, smart phone, tablet computers, and other technology, prepares, updates and comments on Standard Operating Procedures (SOPs) as requested by the Assistant Chief Engineer, and/or the People and Process Manager – Thermal Plants (Chief Engineer)
17. Records and maintains daily, monthly and annual plant data which includes (but not limited to): fuel consumption, energy production, power production\consumption, water consumption, fuel

inventory levels, plant efficiency, and greenhouse gas emissions. Reports irregular readings to the Assistant Chief Engineer or the Chief Operating Engineer.

18. Maintains a safe work environment in respect to items such as chemical\fuel spills and to maintain a reasonable level of cleanliness within the Thermal Energy Plants. Housekeeping is a shared responsibility of all members of the plant team.
19. Performs the appropriate action to minimize problems associated with emergencies.
20. The ability to maintain certification and training in the operation of UBC Fleet Vehicles, forklifts, lifts, and other vehicles as required. UBC to provide specialized training where required.
21. Maintains appropriate pressures and temperatures within the DES system by ensuring adequate pumps, boilers, and auxiliary equipment are in operation.
22. May be required to conduct routine inspections of the CEC and other EWS thermal energy plants, and or operate local plant equipment at said plants, when required by the Assistant Chief Engineer, and/or the People and Process Manager – Thermal Plants (Chief Engineer).
23. May be required to perform additional duties related to the qualifications and requirements of the classification.

CONSEQUENCE OF ERROR

Relative to duties described above failure to utilize due diligence and follow proper procedures while on shift could have serious effects to campus heating system, cause death or dismemberment to UBC Staff, Faculty and Students, and\or cause catastrophic damage to EWS Thermal Energy Assets.

SUPERVISION RECIVED

Supervision and mentorship are given to the Shift Team Leader by the Assistant Chief Engineer, and/or the People and Process Manager – Thermal Plants (Chief Engineer). Indirectly supervised by the Thermal Energy Manager.

SUPERVISION GIVEN

The Shift Team Leader is designated by the People and Process Manager – Thermal Plants (Chief Engineer) and/or the Assistant Chief Engineer as the power engineer to be responsible for and in control of the processes and equipment in UBC Energy and Water Service's thermal energy plants while they are in operation; person-in-charge (the P.I.C.), as described in the BC Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation.

Direct and supervise power engineers and other thermal plant staff assigned to assist in the operation and maintenance of the plant during the absence of the Assistant Chief Engineer and/or the People and Process Manager – Thermal Plants (Chief Engineer).

Maintain order among any and all persons employed in the plant that are under their supervision as delegated by the Assistant Chief Engineer and/or the People and Process Manager – Thermal Plants (Chief Engineer).

Ensure operating procedures for the plant are understood, observed, and complied with.

Ensure a watch is kept on the condition of all units (equipment) and installations in the plant; take such measures as are necessary to prevent or alleviate any immediate danger to the plant and its occupants; and report to the chief power engineer any condition that may jeopardize the safety of the plant.

Make accurate records in the plant log book of any conditions that may affect the safety (safe operation) of the plant.

The Shift Team Leader shall not leave the BRDF plant site during the period of their shift until relieved by another qualified and trained power engineer (usually another Shift Team Leader), the Assistant Chief Engineer, and/or Management or Management's designates or until the plant they are in charge of has been safely shutdown.

The Shift Team Leader will be expected to exercise supervision and responsibility of equipment or areas of UBC E&WS thermal energy plants as requested or assigned by the Assistant Chief Engineer, and/or the People and Process Manager – Thermal Plants (Chief Engineer).

QUALIFICATIONS

An Interprovincial Third-Class Power Engineer Certification of Qualification issued by Technical Safety BC (TSBC). Candidates must submit a digital copy of this certification with their application. The authenticity of this certification will be confirmed with TSBC.

A minimum one (1) year experience operating in a high-pressure power generating steam plant with an industrial process or equivalent experience. Experience desired in solid fuel handling systems, electrical power generation and distributed control systems (DCS).

- A demonstrated ability in mechanical and instrumentation skills related to plant maintenance.
- A BC Class 5 or 7 Drivers License in good standing.
- The ability to maintain certification and training in the operation of UBC Fleet Vehicles, forklifts, lifts, and other vehicles as required. UBC to provide specialized training.
- Ability to use computers and associated software.
- Ability to operate, or learn how to operate, smart phones and tablet computers.
- A demonstrated ability to work both independently and as a team.
- A demonstrated initiative and attitude to improve the plant and the general workplace.
- Effective written and oral communication skills in English.
- The dedication and commitment to self-improvement and remaining current in the Power Engineering craft. This may include continuing education requirements and upgrade courses required by TSBC in the future.