March 14, 2022

The University of British Columbia

Standard Job Description: Relief 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.

The Relief Shift Team Leader is a third-class power engineer who is trained and certified to perform the duties of a Shift Team Leader. The Relief Shift Team Leader works day shifts unless scheduled or requested to cover for an EWS Thermal Plant Shift Team Leader (STL). The Relief Shift Team Leader can also provide coverage for absent EWS Thermal Plant Power Engineers.

When covering for a Shift Team Leader, under the direction of the People and Process Manager – Thermal Plants (Chief Engineer), and/or the Assistant Chief Engineer (ACE), the Relief Shift Team Leader is the person-in-charge and is directly responsible for the safe and efficient operation, maintenance, service and repair of equipment and process systems in UBC Energy and Water's Thermal Energy Plants. They assume the duties and job description of the Shift Team Leader.

When covering for an EWS Thermal Plant Power Engineer, the Relief Shift Team Leader assumes the duties and job description of the EWS Thermal Plant Power Engineer with no change in pay (as per article 16.01 of the collective agreement).

The Relief 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, ranging from conventional gas-and-oil-fired thermal boilers to biomass thermal boilers involving wood gasification technology and conventional wood-burning thermal boilers.

Equipment within their operational expertise and responsibility include fuel material handling systems, boilers systems described in paragraph above and related auxiliary systems, combustions 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 manning a thermal energy plant or a section of a thermal energy plant, under direction from People and Process Manager – Thermal Plants (Chief Engineer) and/or the Assistant Chief Engineer, and/or the STL, the RSTL assumes responsibility for the safe and efficient operation of all plant equipment at the thermal plant or the section they are assigned to. They are responsible for the safety of UBC and contractor personnel working in the CEC process plant areas of operation.

ORGANIZATIONAL STATUS

The Relief Shift Team Leader receives direction and supervision from the People and Process Manager – Thermal Plants (Chief Engineer), the Assistant Chief Engineer, and/or the on-duty Shift Team Leader.

As per the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation, when covering for a Shift Team Leader, the Relief 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 an EWS Thermal Energy Plant, but not designated as a Shift Team Leader for the shift, the individual will be considered an "assistant engineer" or "maintenance engineer" as per the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation and reports to the designated Shift Team Leader for the shift. There will be no change in pay.

If there is an absence of an EWS Thermal Plant Power Engineer and additional operations staff is deemed necessary for Thermal Plant Operations by the People and Process Manager – Thermal Plants (Chief Engineer), a Relief Shift Team Leader may be scheduled or called in through the callout procedure. There will be no change in pay.

WORK PERFORMED

1. Duties and work performed required of a Shift Team Leader when covering for an absent Shift Team Leader.

2. Duties and work performed required of an EWS Power Engineer when covering for an absent EWS Power Engineer.

3. 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.

4. Responsible for the safe start-up, shutdown, and lockout of equipment in the Thermal Energy Plants as well as maintenance or repair related to the operation and maintenance of that equipment.

5. Participates with, supervises, directs, and assigns daily maintenance and plant operation activities for personnel under their charge in the UBC Thermal Energy Plants.

6. Records operating, maintenance and safety conditions in log sheets and log book and communicates carryover conditions to the STL and the relieving EWS Thermal Plant Power Engineer.

7. Troubleshoots and maintains all equipment within the scope of a power engineer 3rd class.

8. 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.

9. Responsible for the operation and maintaining of water treatment system which include daily water testing, logging data, adjusting chemical feed and adjusting blow-downs, etc. under the supervision of the Shift Team Leader.

10. Reports on system and equipment defects with recommendations and solutions to the Assistant Chief Engineer and Management.

11. Communicates carryover conditions to the relieving shift team.

12. Physically maintains the process flow of the plant, which may include inspections and unplugging conveyors, transfer point and ash handling systems and syngas conditioning, flue gas treatment, and liquid and gas fuel systems.

13. Supervises and participates in confined space entry, and related duties, as required. Attend all training sessions as required.

14. Maintains up-to-date certification and practice skills provided by the courses and training identified in the Energy and Water Services training matrix

15. Operates forklifts and other specialized vehicles as required.

16. Effectively communicates and responds to emails, phone calls, and text messages as required. Using communication devices (radios, cell phones, etc.) as required.

17. Records and maintain 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.

19. Performs the appropriate action to minimize problems associated with emergencies.

20. Maintains appropriate pressures and temperatures within the DES system by ensuring adequate pumps and boilers are in operation.

21. May be required to conduct Rounds of the CEC, and or operate local plant equipment at the CEC, when required by the STL, the Assistant Chief Engineer, and/or the People and Process Manager – Thermal Plants (Chief Engineer).

22. May be required to perform additional duties related to the qualifications and requirements of the classification and abilities of a Power Engineer.

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 Relief Shift Team Leader by the Assistant Chief Engineer, the People and Process Manager – Thermal Plants (Chief Engineer), and the EWS Thermal Plant Shift Team Leaders.

SUPERVISION GIVEN

If the Relief Shift Team Leader is covering for a Shift Team Leader, they are designated by the plant 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 the Thermal Energy Plants and shall execute the duties and expectations of a Shift Team Leader.

If the Relief Shift Team Leader is covering for an EWS Power Engineer, works with the on-duty Shift Team Leader in executing responsibility and control of the processes and equipment in UBC's Thermal Energy Plants and shall execute the duties and expectations of an EWS Power Engineer.

The Relief 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 Shift Team Leader, 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.
- Using communication devices (radios, cell phones, etc.) as required.
- 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.