



JOB DESCRIPTION

Design Engineer

JOB FUNCTION

Carry out the preparation of engineering & scientific aspects of power generation, hydrogen generation, steam generation, transmission & distribution using a broad field of engineering & technical knowledge. Carry out analyses of engineering designs or schemes of work for plant, equipment & systems, including contracted portions, to ensure design parameters are met. Participate on committees, task forces, etc.

JOB DUTIES

The Design Engineer must be a licensed Professional Engineer under the site provincial regulatory body, i.e., Professional Engineers Ontario (PEO), ensures Design engineering activities are performed in accordance with written and approved policy, standards, programs, procedures, and instructions that reflect the expectations of the Manager Design Engineering and all applicable rules, regulations, codes, standards and requirements of the station operating licenses, including the license condition handbooks.

1. Carry out the preparation of engineering and scientific aspects of power generation, transmission and distribution according to general instructions, and using a broad field of engineering and technical knowledge: work with established designs or general direction governing advanced or developmental approaches; carry out analyses, interpretations and special studies for the definition and solution of problems, or for economic or efficiency considerations; prepare or modify specifications, procedures, estimates and information on contract content, material selection or treatment, testing, etc; visit project sites and manufacturers' locations to obtain data and review progress with customers, suppliers, and to become familiar with the operating environment.
2. Carry out analyses of engineering or scientific designs or schemes of work for plant, equipment and systems, including contracted portions, to ensure optimum, economic, project design parameters are met: participate in analyses, including discussions with suppliers regarding matters of design, facility operation, cost, availability, schedule, manufacturing technique, performance tests, etc; prepare recommendations to achieve project objectives; work with others, including customers, suppliers, in the resolution of problems.

3. Participate on multidisciplinary project teams to interface the engineering and constructions effort with the requirements of other contributing or concerned groups.
4. Serve on committees, task forces, etc.: contribute to matters under discussion; make presentations.
5. Maintain an awareness of state-of-the-art of the engineering profession and new advances in engineering design, methods, materials, etc.
6. Other Duties as Required

EDUCATION

- Requires knowledge of engineering and mathematics, design, materials, construction, etc, as they pertain to facility design and operation. Requires knowledge of economics and business processes to carry out engineering studies, analyses and design activities. Requires good oral and written communications skills to make presentations and work with others. This knowledge is considered to be normally acquired either through the successful completion of a four year university education in appropriate engineering subjects.

EXPERIENCE

- Requires experience including an understanding of facility, equipment and systems, such as construction, fabrication, installation and operation. Requires experience in conducting studies, engineering design and analyses. Requires experience to keep informed of the state-of-the-art of engineering design, materials, methods, etc. Requires experience to pursue problem solving processes in a team environment. A period of over 4 years and up to and including 8 years is considered necessary to gain this experience.