



Resource Training Organization – 403 – 21183 88th Avenue, Langley, BC V1M 2G5 – 604 455 0075

Re: Apprentices registered in the ITA Industrial Electrician Certificate of Qualification Apprenticeship Training Program

The qualification uses competency based assessment and an integrated workplace and theory assessment approach to demonstrate competence as an Industrial Electrician.

Industrial Electricians install and maintain the electrical fixed assets of industrial operations. Operations which are likely to employ Industrial Electricians include, but are not limited to, the following:

- Oil and gas processing plants
- Mining and Smelting operations
- Food processing plants
- Sawmills
- Manufactured wood product plants
- Printing plants
- Pulp and paper mills
- Light and heavy manufacturing operations
- Industrial Construction Contract Operations
- Water and sewage treatment plants
- Other utility installations
- Electrical contractors that provide industrial service and maintenance expertise.

Industrial Electricians are relied upon to troubleshoot and diagnose electrical and process failures in manufacturing and processing facilities. Troubleshooting requires a broad base of electrical competence in order to isolate and repair faults and failures. When a plant or process is down, time is of the essence in finding and repairing faults. The Industrial Electrician is likely to be involved in all aspects of an operation, often working with Millwrights, process operators and Instrument Mechanics to troubleshoot equipment and to optimize and isolate processes.

Industrial Electricians are competent working at extra low, low and high voltages, and can be called on to install lighting right through to installation of high voltage transformers. They are able to build and install electrical systems, although the amount of time spent doing this varies widely between places of employment.

Electrical technology and equipment changes rapidly. Industrial Electricians are required to continually learn and develop new skills to keep current with new technology and processes which are supported by this industry.

Industrial Electricians can move into maintenance planning and other supervisory positions as well as develop specialized skills in areas of the trade beyond the apprenticeship program.

Industrial Electrician Program Outline

This Program Outline is comprised of a set of industry defined competency standards against which Industrial Electrician Apprentices are to be assessed as they learn the knowledge and skills throughout their apprenticeship.

There are two distinct types of competency standards, Theory Competency Standards and Workplace Competency Standards.

Theory Competency Standards are:

- Typically achieved in post secondary settings
- Assessed in the post secondary (classroom) setting
- May have a practical lab component which take the form of ‘theory proof and applied understanding’ exercises
- Once achieved the theory competency standards equip the apprentice with the ‘underpinning knowledge’ to go into the workplace and develop competence

Workplace Competency Standards are:

- Typically achieved on the job
- Assessed on the job by workplace assessors
- Naturally occurring evidence of workplace performance is used to determine competence
- The apprentice gathers evidence of competent performance to present to the assessor – in some case the assessor will directly observe the apprentice to support assessment decision making
- Workplace competency standards are achieved through combining theory from the knowledge competency standards with practical experience and applied learning

A credit weighting system is used to show the learning effort required to achieve competence. Credits have the same value in the workplace as they do in the classroom.

Program completion requires achievement of the required workplace competency standards as documented by a workplace Log Book as well as successful completion of four periods of technical training, six thousand documented hours of Industrial Electrical work experience, and the Inter-Provincial Red Seal examination.

Successful Program Completion results in the BC “Certificate of Qualification” (Industrial Electrician), a BC Certificate of Apprenticeship and the Inter-Provincial Red Seal Endorsement (Industrial Electrician).

Assessment of Apprentices

The competency based assessment of apprentices in the Industrial Electrician program is significantly different than most other apprenticeship programs. This approach requires a much higher degree of employer and apprentice responsibility in tracking and assessing the apprentice's progress throughout the apprenticeship. A comprehensive log book is provided to guide the apprentice development, record their achievements and verify their assessments. To achieve the B.C. Industrial Electrician Trade Qualification the apprentice must achieve the industry standard in each competency which will be assessed by a designated assessor. Although there will be more emphasis on practical assessment, theory examinations will still be taken by the apprentice for each in-school training level and inter-provincial certification.

Assessors

Employers are required to designate assessors that must successfully complete an assessor training program and be registered with the Resource Training Organization (RTO). In most cases the assessors will be qualified electrical journeypersons from the operation. The assessors are responsible to ensure the apprentice has the practical skills and is proficient in all of the on-the-job competencies. An assessor guide will be provided to assist the assessor, and will be supported by a moderator from the RTO.

The requirements for Assessor registration are as follows:

1. Have 5 years industrial experience as a Red Seal Electrician.
2. Attend a two-day Assessor training course.
3. Pass (70% or greater) a 25-question multiple choice exam based on the training course curriculum.
4. Complete one assessment with an apprentice. The assessment will be reviewed by RTO.
5. Complete the Assessor Registration Form and mail it to Industry Training Authority.

Assessor Training Courses will be held at various time and locations and will depend on the number of registrations from the different regions of the Province. Please contact RTO to register and for further information on Assessor Training Courses.

info@rtobc.com or through the website rtobc.com