

# Live Performance Electrical Certificate: Frequently Asked Questions

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## 1. What is the LPEC?

The Live Performance Electrical Certificate (LPEC) is an industry training credential for workers who perform temporary assembly and interconnection of plug-in wiring systems used in live performing arts, trade shows, conventions, touring shows, and festivals.

## 2. Why was this certification created?

The development of this certification was driven by the industry in acknowledgement that, under the **BC Safety Standards Act: Electrical Safety Regulations**, individuals are not permitted to perform many of the tasks commonly associated with the set-up and operation of stage lighting and other audio-visual systems, unless they hold a valid electrical certificate. There are a significant number of people employed in the live entertainment industry who are not aware of this regulation, and who have been performing this work without a recognized credential.

The specific regulation can be found here:

[http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/12\\_100\\_2004#section4](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/12_100_2004#section4)

## 3. Aren't there already electrical certifications that apply to the entertainment industry?

There are currently two existing certificates - The Full Entertainment (FE) and the Limited Entertainment (LE) tickets, which apply to electrical work in the entertainment industry. These are specific to the needs & working conditions of the Motion Picture industry. Both of these tickets require a significant level of work experience in addition to a 2-3 hour exam.

## 4. How is the LPEC different from the FE or LE certificates?

The LPEC covers the work performed by lighting grips or stagehands, during the setup, run and strike of theatrical and other live events. It applies to the tasks that lighting crews commonly perform as they hang, focus, cable and maintain a lighting rig, as well as the set-up of PA systems and audio-visual installations used in live entertainment. The FE and LE tickets cover a much wider scope of work and are more applicable to workers at the department head level who perform power tie-ins and more complex electrical work, as well as film and television workers, who deal with high power lighting fixtures and generators. The holder of an FE or LE may also act as a field safety representative and sign for electrical permits, whereas the holder of an LPEC may not. The LE/FE is a higher level of certification.

## 5. What kind of work will I be certified to do once I pass?

The LPEC certifies a worker to perform the following scope of work:

- Set up temporary, plug-in electrical systems used in Performing Arts, trade shows, conventions, touring shows, and festivals
- Utilize existing fault-protected electrical systems
- Interconnect plug and cap assemblies and branch circuits
- Set-up and interconnect XLR, 3, 4, and 5 pin cables, telex cable, coaxial, cat-5 and A/V cable
- Service equipment under manufacturer's documented recommendations and instructions.
- Supervise a maximum of two uncertified workers on work within the LPEC scope

### LIMITATIONS (please read):

1. All equipment used under this certification must be CSA approved or recognized by the BC safety authority.
2. Work is limited to a maximum of 240-volt 100 Amp 3-phase permanent utility supplied.
3. Connection of live parts is not authorized.
4. Understanding of the relevant sections of the Safety Standards Act and applicable regulations as well as basic electrical safety is required.
5. An LPEC holder is not authorized to act as a Field Safety Representative or sign for permits to do electrical work.
6. Regulated work for permanent installations or in hazardous locations is not authorized.

## 6. What is the cost?

There is a \$25 administration fee to write the exam. There is no expiry date or requirement for renewal.

## 7. How do I prepare for the test?

The free study guide is available online on the LPEC exam's page at [www.actsafe.ca/courses-workshops/live-performance-electrical-certification/](http://www.actsafe.ca/courses-workshops/live-performance-electrical-certification/). In addition, workers must demonstrate they have 800 hours of practical experience, acquired:

- A** in a training program with an established reputation in the Performing Arts industry and/or
- B** while employed with a contractor or employer.

## 8. Who developed the exam?

Technicians working in the industry developed the exam. It was launched in February 2011 and revised following extensive industry consultation. A working group, consisting of three technicians and Actsafe's communications manager,

reviewed the feedback, made changes to the study guide, and clarified test questions in May 2012 to reflect the concerns of the industry.

## **9. Who should obtain an LPEC certificate?**

This certificate is designed for workers in the live event industry, who set up sound, lighting, and AV systems in venues with an existing, fault protected, electrical system – as would be found in most convention centres, theatres, and concert halls. The LPEC applies to the tasks that grips and stagehands are normally assigned as part of a lighting or audio/AV crew – namely, the interconnection of plug and cap assemblies and branch circuits. The LPEC certificate DOES NOT apply to the motion picture or television industry – those workers require an LE or FE.

## **10. When does this regulation come into effect?**

In fact, the requirement for persons setting up stage lighting to be certified has been in place for many years. However, the process to obtain an FE/LE certificate has proven to be a higher level of certification than is necessary for the live event industry due to the broad scope that those certificates cover. The LPEC will facilitate greater electrical regulatory compliance within the performing arts and establish a common industry approach to safety awareness. The LPEC has been developed with ease of access to certification as a primary consideration.

## **11. How do I obtain an LPEC certificate?**

To obtain your certificate, you will write an online exam. The exam includes questions that test the candidate's understanding of both practical and academic subject matter. Therefore, applicants must have practical experience in the field and should be prepared to answer questions not necessarily covered in the study guide. To write the test, you must demonstrate and document 800 hours of practical experience. You can use the online study guide to prepare, and you must receive a score of at least 70% to pass the LPEC exam.

## **12. What is 'verification'?**

Because the examination is taken online at a time and location convenient for the candidate, we require an independent verification by an employer, union official, instructor or other responsible party to confirm that the candidate named in the application will be the person writing the examination. The application kit includes a form for the verifying individual to complete and sign.

### **13. When can I take the test?**

An application kit is available on our website at: <https://www.actsafe.ca/courses-workshops/live-performance-electrical-certification>

Download the application form and submit it to us. On approval of your application, you will be provided with a link and access code to write the test. We usually get back to you within a week or two and the code changes frequently. Download the study guide right away as you should be prepared to write within a week.

If you access the link and get an expired code, please call the office at 604-733-4682 to get the new code.

### **14. What is the passing grade?**

You must score 70% or more to pass the LPEC Exam. You will have 3 attempts to achieve the passing grade.

### **15. How long do I have to write the test?**

Applicants have 75 minutes to write the examination. Re-testing is permitted up to three times in six months, with a minimum 3-day delay between attempts 1 & 2, and a one-week delay between the second and third attempts. This delay is intended to allow the candidate time to review the Study Guide.

### **16. How many questions are on the test?**

There are 75 multiple-choice questions to answer.

### **17. Who authorizes and enforces the LPEC?**

Technical Safety BC (formerly the BC Safety Authority) authorized Actsafe to offer this certification under a specific scope with limitations (*see Question 6 for full scope and limitations*). The BC Safety Authority is the organization responsible for overseeing compliance.

### **18. Is there an electrical training program available?**

We are not aware of a specific program that covers all the material required for certification. Several colleges and universities offer “technical theatre” programs that teach an electrical component. Actsafe provides a study guide and the online certification.

### **19. What if I have the required hours of practical experience, but cannot provide verification?**

Many people have worked for years in the industry for multiple employers or outside British Columbia. We understand that. If you are having difficulty

certifying your hours of practical experience, write us a letter explaining the circumstances and we will review it on a case-by-case basis.

## **20. What part of the electrical code should I study to pass?**

The LPEC tests a candidate's understanding of the scope of the work performed, rather than knowledge of particular regulations or code. The BC Safety Authority has also provided some specific limitations. (Please refer to the study guide and the scope/limitations in Question 5)

## **21. After I take the exam, will I get a chance to review the questions I got wrong?**

We have heard from many people who would like to see how they did on the exam, and most people have very good reasons for asking. Unfortunately, we cannot offer feedback because the test must be applied consistently to assess the competency of all candidates fairly. We do not change the test unless we are made aware of an error, so giving candidates information about their results compromises the test.

However, if you have failed the test twice and would like to study before you try it again, please call Maureen Kaake at 604.733.4682. In those cases, only, she can review your previous results. If the errors you made on the first two attempts fall into one or two knowledge areas, she can give you some general advice about what to study before you do the test again.

## **22. Does the LPEC cover the use of generators?**

Setting up a small, approved, portable generator with a limited amount of cords connected is unregulated work, anybody can do this and a permit is not required. The criteria that the BC Safety Authority has set for when a temporary entertainment permit is required is that the generator not be greater than 5kW and, that there are no portable power distribution panels connected to it.

So, while extensive temporary lighting, or audio-visual set-ups require a permit, the use of the above generator does not and LPEC holders may use such a generator.

The LE or FE qualifications allow the holder to obtain a temporary entertainment permit and work with larger generators. Training on grounding and bonding requirements is part of the required knowledge.

**If you have further question or need more information, please visit our website at [www.actsafe.ca](http://www.actsafe.ca), or feel free to give us a call at 604.733.4682/1.888.229.1455.**