

ARC FLASH AND SHOCK ELECTRICAL SAFETY TRAINING

January 21, 2019 | Richmond, BC

January 22, 2019 | Edmonton, AB

January 23, 2019 | Saskatoon, SK

January 24, 2019 | Winnipeg, MB

January 25, 2019 | Mississauga, ON

1-DAY COURSE
\$399



Top 5 Benefits of Instructor-led Training

- Learn from an instructor who is trained and knowledgeable regarding electrical safety.
- Students have the opportunity to ask questions which are answered in class while the thoughts are fresh.
- Students can enter discussion and get feedback from other attendees with examples of best practices.
- Real life examples and solutions are used to present the information in a meaningful way which helps students relate to their own workplace experiences.
- All levels of experience and knowledge are accommodated.

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EDUCATION UNITS (CEUS)

COMPLETE COURSE DETAILS AT
LV - WWW.ELECTRICITYFORUM.COM/ELECTRICAL-TRAINING/ARC-FLASH-TRAINING

The Arc Flash and Shock Electrical Safety Training Course Includes:

- 100+Page Digital Electrical Safety Handbook (Value \$20)
- An Electricity Forum Coupon (Value \$100) to be used against any future 2019 Electricity Forum event (restrictions apply)
- 0.7 CEU credits issued by the Engineering Institute of Canada.
- Forum Presentations in Paper Format
- A FREE Magazine Subscription (Value \$50)
- NOTE: This course DOES NOT INCLUDE A CSA Z462-18* Standard. Copies of the CSA Z462-18* Standard must be purchased separately from Canadian Standards Association and brought to the course.

DAY ONE - LOW VOLTAGE

THIS 1-DAY - INSTRUCTOR-LED, CERTIFIED ARC FLASH AND SHOCK TRAINING COURSE INCORPORATES RECENT REVISIONS TO THE LATEST EDITION OF CSA Z-462 ARC FLASH ELECTRICAL SAFETY IN THE WORKPLACE STANDARD.

CSA Z-462 2018 Edition As of January 2018 - Important Changes That You Should Know About.

Make sure you are aware and compliant with the many changes to the latest edition of 2018 CSA Z462 Arc Flash/Electrical Safety Standard, which came into effect in January 2018.

Our popular one-day CSA Z462 Arc Flash Training course is designed for front-line workers who are responsible for electrical systems and needing certification in the CSA Z462 electrical safety standard. This standard covers safe work practices related to electrical dangers in the workplace. Students will gain a solid understanding of hazards encountered while operating or maintaining electrical installations in the low voltage (below 750V) class including a full understanding of the arc hazard categorization, appropriate PPE selection and safe electrical work procedures.

This one-day Instructor-led Arc Flash Training course is much more educational experience than taking an online training course or watching an online video!!

The Electricity Forum Electrical Safety Masterclasses that we launched last year were some of the most popular events we've ever held: lively, interactive sessions where front-line electrical workers and electrical safety supervisors came together with our certified Electrical Safety instructors to discuss Electrical Safety standard, provincial regulations and electrical workplace practices, all in an effort to improve everyone's winning formula electrical safety in the workplace. These classes were highly interactive, productive, hands-on and they made a big difference to the results our students. Remember, the point of Arc Flash and Shock safety education is not to just teach the rules – it's to teach workers how to work more safely and thereby avoid injury and death.

Our Arc Flash and Shock classes were so successful that we're running them again this year, with updated content and more meaningful and engaging exercises. When it comes to Instructor-led training, the greatest benefit is being able to ask questions, present problems, and find solutions through group discussion and group learning.

And that's why we are renaming our Arc Flash Training Course our "Arc Flash and Shock Masterclass": to reflect the fact that these classes are more than just arc flash training courses (which anyone can read or watch on the internet for next to nothing) – they're practical explorations where electrical workers and supervisors get to ask questions and find unique and specific safety advice tailored to their exact needs. It's like having an electrical safety consultant in the room for a whole day!

In each of our Electrical Safety Lab sessions, students have the opportunity to explore every aspect of the latest electrical safety standards in detail: walking through how the standard is designed, the rationale for the rules and how to use the standard to achieve the objective of working more safely. By sharing adverse experiences (accidents) with others, students can learn more quickly how to avoid accidents and learn from our experts about current best electrical safety practices and how to apply them.

We guarantee that students will walk away with a deeper insider insight into how to work more safely – and all of the practical knowledge they need to walk back into your organization and working more safely and more productively.

Note: Employers have the legislated obligation to identify hazards, evaluate the risks, select and implement the appropriate controls. This course helps companies to understand their legal requirements and what due diligence is required to avoid conviction under provincial or federal OHS legislation, or the Criminal Code of Canada.

Learn from our instructor and others in the class

Students will learn real-life examples and have their electrical safety questions answered by a safety professional with years of electrical safety experience in the development and implementation of an arc flash safety program. Class discussion is encouraged and students also have an opportunity to learn from each other. They will understand the hazards of energized electrical work and how the following Top 5 mistakes workers make can lead to a very serious injury, lost production and/or a fatality.

Top 5 mistakes workers make when it comes to electrical safety.

- Failure to verify the absence of voltage before beginning work.
- Failure to identify the arc flash hazard, evaluate the risk of arc flash and implement the appropriate controls.
- Inappropriate selection and/or use of personal protective equipment.
- Complacency to low voltage hazards (typically 115 to 250 volts).
- Failure to develop and communicate an emergency response plan.

Our Arc Flash/Electrical Safety Masterclass course will students avoid these mistakes and help students to recover if they already made these kinds of mistakes.

Top 5 Benefits of Instructor-led Training

- Learn from an instructor who is a certified safety professional with years of experience in the electrical trade.
- Students have the opportunity to ask questions which are answered in class while the thoughts are fresh.
- Students can enter discussion and get feedback from other attendees with examples of best practices.
- Real life examples and solutions are used to present the information in a meaningful way which helps students relate to their own workplace experiences.
- All levels of experience and knowledge are accommodated.

Instructor-led classes have the flexibility to cater to all levels of experience and electrical knowledge. Even non-electrical workers will gain an appreciation for the hazards of electrical work.

How will taking our Arc Flash Training course make you safer in your workplace?

Our instructor-led Arc Flash training course presents students with information they need to evaluate the arc flash and shock hazards, and to help them to ensure the safety of themselves and other electrical workers that may be in proximity to energized electrical equipment. Students will understand the value of a comprehensive risk evaluation, the importance of safe work procedures and pre-job planning.

One workplace electrical incident can cost an organization a huge price in terms of injuries, fines, reputation and workers compensation premiums. Employers and supervisors can face personal liability for an injury in their workplace that could result in fines up to \$1,000,000, four years, or more, in jail, or both. Many workers may not have received arc flash hazard information in their apprenticeship training and many organizations do not meet current workplace electrical safety standards. This course identifies what it means to be a "qualified electrical worker" and organizations should be aware that holding a license as a journeyman may not be enough to qualify. The importance of developing safe work procedures, training workers, identifying hazards, evaluating risks, planning and documenting safe work is covered.

Workers are given the information and workplace best practices in the course but many times are powerless to use the information because the infrastructure is not in place in their organization. Certification will not change that.

This course covers the analytical process of identifying electrical hazards such as shock and arc flash burns, to determine and communicate the appropriate control methods to be used. We explain why complacency can be deadly when working with circuits energized at 120 volts.

This one-day arc flash training course is designed to assist organizations to identify shock and arc flash hazards and prevent injuries and incidents associated with those hazards.

Note: Students will demonstrate understanding of arc flash hazards and PPE protection by passing a proficiency examination at the end of the course!

THIS COURSE IS IDEAL FOR:

- Industrial, Commercial, Institutional Electrical Industry Engineering And Maintenance Personnel
- Electrical Personnel Who Work On Or Near Energized And De-Energized Electrical Equipment
- Electrical Safety Managers And Safety Professionals

COURSE OUTLINE

WORKPLACE SAFETY REQUIREMENTS

- OHS Legislation
- Right To Refuse Unsafe Work
- Legal Requirements Relating To Safe Work Practices

ELECTRICAL HAZARDS

- Electrical Shock
- Effects Of Current On Human Beings
- Shock Protection Boundaries
- Approach To Energized Electrical Conductors Or Circuit Parts Operating At 50 Volts Or More
- Arc Flash/ Arc Blast
- Elements And Characteristics Of An Arc Flash Event
- Arc Flash Hazard Analysis
- Arc Flash Protection Boundary For Voltages Between 50 And 600 Volts

Safety Work Related Practices

- Worker Responsibility
- Employer Responsibility
- Electrical Safety Program
- Host And Contract Employers Responsibilities
- Establishing An Electrically Safe Work Condition
- Energized Electrical Work Permit

Safety Maintenance Requirements

- General Maintenance Requirements
- Substation, Switchgear Assemblies, Switchboards, Panelboards, Motor Control Centres
- Control Equipment
- Fuses And Circuit Breakers
- Rotating Equipment
- Hazardous Locations
- Batteries And Battery Rooms
- Portable Electric Tools And Equipment
- Personal Safety And Protective Equipment

Safety Requirements For Special Equipment

- Safety Related Work Practices For Electrolytic Cells
- Safety Requirements Related To Battery Rooms Or Battery Room Enclosures
- Safety Related Work Practices For Use Of Lasers
- Safety Related Work Practices For Power Electronic Equipment
- Safety Related Requirements For Research And Development Laboratories

Arc-Flash

- General Information
- Calculation Methods And Factors Affecting Arc-Flash
- Working Distances
- Arc-Flash Mitigation

Risk Assessment and Risk Control

- Introduction To Risk Management And General Information
- Relationship To Occupational Health And Safety Management System

(OHSMS)

- Hierarchy Of Risk Control Methods
- Hazard Based Risk Assessment
- Task-Based Risk Assessment
- Risk Assessment Methods

Guidance on Selection of Protective Clothing and Other Personal Protective Equipment (PPE)

- Arc-Rated Clothing And Other Personal Protective Equipment
- Simplified Two-Category Clothing Approach
- Arc-Rated Clothing And Other PPE For Use With A Risk Assessment Of Electrical Hazards
- Conformity Assessment Of PPE

Categories of Electrical Hazards

- General
- Electric Shock
- Arc Flash
- Arc Blast

Layering of PPE

- Layering Or PPE
- Total System Arc Rating
- Layering Using Arc-Rated Clothing Over Natural-Fibre Clothing Underlayers

Safety Related Design

- Introduction
- General Design Considerations
- Additional Safety By Design Methods

Arc-Flash, Shock Warning and Information Labels

- General
- Examples Of Arc-Flash Warning Labels

Guidance for preventing injuries from electrostatic discharges during manufacturing operations

- General
- Triboelectric Effect
- Electrostatic Discharge Injuries
- General Electrostatic Discharge Control

Human Performance and Electrical Safety

- Introduction
- Principles Of Human Performance
- Information Processing And Attention
- Human Performance Modes And Associated Errors
- Knowledge Based Performance Mode
- Error Precursors
- Human Performance Tools
- Human Performance Warning Flags
- Workplace Culture



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(905) 686-1040



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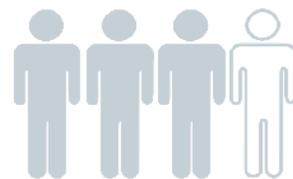
ON-LINE:

www.electricityforum.com/
electrical-training/arc-flash-training



MAIL:

The Electricity Forum
1885 Clements Rd., Unit 218
Pickering, ON L1W 3V4



REGISTER 3 DELEGATES AT FULL PRICE AND GET THE 4th REGISTRATION FREE!

WHEN & WHERE

Richmond, BC

January 21, 2019

Sandman Signature Vancouver Hotel & Resort
10251 ST. Edwards Drive

Richmond, BC

Tel: 604-278-9611

Edmonton, AB

January 22, 2019

Sawridge Inn Edmonton South
4235 Gateway Blvd NW

Tel: 780-438-1222

Saskatoon, SK

January 23, 2019

Sandman Airport Hotel
310 Circle Drive

Tel: 306-477-4844

Winnipeg, MB

February 24, 2019

Sandman Hotel & Suites
1750 Sargent Ave.

Tel: 204-775-7263

Toronto, ON

February 25, 2019

Hampton Inn and Suites
3279 Caroga Drive, Mississauga, ON

Tel: 905-671-4730

ATTENDEE INFORMATION

To receive registration fee discounts, you must **REGISTER AND PREPAY** prior to the course date.

NAME _____

TITLE _____

COMPANY _____

ADDRESS _____

CITY _____

PROVINCE _____

POSTAL CODE _____

E-MAIL _____

TEL () _____

FAX () _____

METHOD OF PAYMENT

Bill My Credit Card

AMEX **VISA** **MasterCard**

Card # _____

Exp. Date _____

Signature _____

Card Holders Name _____

The registration fee to attend the oneday Arc Flash and Shock Training course is \$399.00 + GST/HST. The fee includes Course presentation materials, CEU Credit, refreshments, Lunch is Included.

Register and prepay 14 days before forum date and receive an early bird discount of \$50.00

CANCELLATION AND REFUND POLICY

Registration fees are refundable only upon receipt of written notification 10 days prior to the conference date, less a 10 per cent service charge. Substitution of participants is permissible. The Electricity Forum reserves the right to cancel any conference it deems necessary and will, in such event, make a full refund of the registration fees.