

Are you meeting your workplace safety requirements for preventing arc flash hazards?

Arc Flash Hazard Analysis

Why an Arc Flash Hazard Analysis?

All employers are legally expected to exercise due diligence in protecting employees against hazards in the workplace.

In Canada, CSA Z462 is the standard for workplace electrical safety and referenced in the Canadian Electrical Code and provincial occupational health and safety regulations.

The standard requires that a hazard assessment must be performed to identify both the potential and severity of arc flash events.

What Does the Arc Flash Study Identify?

- ✓ The locations of potential arc flash events
- ✓ The severity of each potential arc flash event
- ✓ Approach boundaries for energized equipment
- ✓ Requirements for proper personal protective equipment (PPE) at each location

Call us. The cost of performing an Arc Flash Hazard Analysis is often a hindrance to owners. We can work with you to develop a project scope that sets clear expectations on schedule and costs from the beginning.

Please contact us with any questions related to arc flash studies, CSA Z462, or protective device (breaker) coordination, or as-built electrical system documentation. We can work with you to enhance your electrical safety program to protect your business, facility and employees .

What is an Arc Flash / Arc Blast?

When a short circuit occurs within an electrical enclosure, high amounts of electrical current will flow. This in turn can result in superheated air producing a highly conductive plasma. The result is a rapid release of energy that can reach temperatures hotter than 20,000°C with a violent concussive shockwave projecting molten metal and dangerous shrapnel.

Our Service

DGH provides comprehensive arc flash studies by sending our experts to your facility for a full, on-site evaluation. A thorough analysis of your electrical system will be carried out using load flow and arc flash modeling consistent with the methods specified in CSA Z462.

Our arc flash experts can provide safety orientation for the owner's maintenance personnel and electricians. This includes learning to read arc flash hazard warning labels, gaining basic knowledge of arc flash hazards, and developing methods to mitigate arc flash accidents.



CIVIL | STRUCTURAL | MECHANICAL | ELECTRICAL | INDUSTRIAL

The purpose of an arc flash hazard analysis is to determine the location and severity of potential hazards and to identify appropriate action to minimize hazards and to protect workers from injury.



Comparing Arc Flash Hazard Analysis bids can be confusing. If your prices are widely varied, likely so are the deliverables. Use the following chart to help you compare bids.

Scope	DGH	Bid 2	Bid 3
Field Data Collection	✓		
Power System Modelling	✓		
Short Circuit Study	✓		
Protective Device Coordination	✓		
Determine Incident Energy Levels	✓		
Identify Underrated Equipment	✓		
Mitigation Recommendations	✓		
Determine Incident Energy Levels	✓		
Full Sized Single Line Diagrams	✓		
Draft Review Period	✓		
Label Installation (CSA Z462 approved)	✓		
Final Report Sealed by a Professional Engineer	✓		

Benefits

- Safer workplace
- Avoid insurance premium increases caused by workplace accidents
- Reduction in employee downtime resulting from injuries
- Hazard labels for electrical distribution equipment
- Documented report with study conclusions and recommendations
- Updated As-Built single-line drawings for your facility

Professional Service - Practical Solutions

Remember, if you need engineering help of any type for your project, you can call DGH for professional service and practical solutions.

With over 30 years of engineering experience in Canada, we know how to collaborate with owners and contractors.

DGH is 100 % Canadian owned by a group of dedicated employees who are committed to providing work that consistently achieves a level of excellence.

WARNING

Arc Flash and Shock Hazard

ARC FLASH PROTECTION

Working distance: **457 mm (18 in)**
 Incident energy: **4.2 cal/cm²**
 Arc flash boundary: **1.0 m (39 in)**

SHOCK PROTECTION

Shock hazard when cover is removed: **208 VAC**
 Limited Approach: **1.0 m (42 in)**
 Restricted approach: **300 mm (12 in)**
 Glove Class: **00**

PPE Required:

- Arc-rated Long-sleeve Shirt & Pants or Coveralls
- Arc-rated Faceshield or Suit Hood
- Hard Hat
- Safety Glasses or Goggles
- Hearing Protection
- Heavy Duty Leather Gloves and Shoes

Equipment Name: Panel 2L
 File: Example Rev 1.OTI

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To learn more about how we can help you, phone: **1-877-334-8846**

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