

## Why Should Health & Safety Professionals Care About Energized Electrical Work Permits

### 1. What is an Energized Electrical Work Permit (EEWP)?

- **CSA Standard Z462** defines an EEWP as a document which captures:
  - **Description** of the work to be performed and electrical circuits involved,
  - **Justification** for performing the work live (or “energized”),
  - Results of Shock and Arc Flash **Risk Assessments**,
  - Authorizing **management signature**.

### 2. When should Health & Safety Professional use an EEWP?

- CSA Z462 states that an **EEWP is required whenever work is to be performed on live (or energized) electrical circuits**, with some exceptions:
  - Testing, Troubleshooting or voltage testing,
  - Visual, thermography or ultrasound inspections if the restricted approach boundary is not crossed.

### 3. What Should You Do About It?

- Check** that all staff and contractor electricians create Z462-compliant **EEWPs** prior to performing energized electrical work.
- Confirm** that a process is in place to have **authorized management approval of all EEWPs**
- Confirm** that all approved EEWPs are stored and accessible to prove **compliance** in case of **audit or incident**.



Read our [Case Study](#) to learn how London Health Sciences handles Workplace Electrical Safety.

## Job Safety Plan Energized Electrical Work Permit

**Worker:** User Test  
**Plant:** NT Demo  
**Equipment:** 7225000, Distribution Panel, 600VDC, DP2A-3304 Process Filters, Bldg1; Floor 3  
**Task:** Breaker Installation-Replacement – Panelboards  
**Work Order Number:** WO-123

**Work Energized:** Yes

**Justification to work Energized:** Hazardous materials ventilation system cannot be de-energized.

### Shock Risk Assessment

**Identify Shock Hazard** 600VDC  
Direct Contact

**Shock Risk Assessment Matrix**

Likelihood of occurrence of injury	Severity	
	Voltage ≤ 30.0 V	Voltage > 30.0 V
Improbable	Low	Low
Possible	Low	High

**Is safety risk present?** Yes

**Hierarchy of Risk Control**

Elimination No  
 Substitution No  
 Engineering Controls No  
 Administrative Controls No  
 Personal Protective Equipment Yes

**Limit of Approach**  
 Limited Approach Boundary: 1.0 m (3 ft 6 in)  
 Restricted Approach Boundary: 0.3 m (1 ft 0 in)

**Necessary shock PPE to safely perform the assigned task**  
 Class of Gloves: Class 00 (Beige)

### Arc Flash Risk Assessment

**Identify Arc Flash Hazard** Shock and Arc Flash Label: Yes

**Arc Flash Hazard Information**

Incident energy (cal/cm<sup>2</sup>): 1 cal/cm<sup>2</sup>  
 At working distance of (in): 4  
 Flash Protection Boundary (in): 15  
 Available Fault Current (kA): 25  
 Circuit Isolation Device:  
 Circuit Protective Device: Field Verify  
 OCD Clearing Time/Arc Duration (s): 0.03  
 AF Analysis date: July 08, 2019

**Arc Flash Risk Assessment Matrix**

Likelihood of occurrence of injury	Severity	
	Energy ≤ 1.2 cal/cm <sup>2</sup>	Energy > 1.2 cal/cm <sup>2</sup>
Improbable	Low	Low
Possible	Low	High

**Is safety risk present?** Yes

**Hierarchy of Risk Control**

Elimination No  
 Substitution No  
 Engineering Controls No  
 Administrative Controls No

Personal Protective Equipment Yes

<b>Arc Flash Risk Assessment Result</b>	Incident Energy (cal/cm2):	1
	Working Distance (in):	4
	Arc Flash Boundary (in):	15

### Required Arc Flash PPE

- Arc-rated clothing with an arc rating equal to or greater than the estimated incident energy
- Long-sleeve shirt and pants or coverall or arc flash suit (Selection of one in group is required)
- Arc-rated faceshield and arc-rated balaclava or arc flash suit hood (Selection of one in group is required)
- Arc-rated outerwear (e.g., jacket, parka, rainwear, hard hat liner) (As needed)
- Heavy duty leather gloves, arc-rated gloves or rubber insulating gloves with leather protectors (Selection of one in group is required)
- Class G or E hard hat
- Safety glasses or safety goggles (Selection of one in group is required)
- Hearing protection
- Leather footwear

## Hazards and Mitigators

<b>Equipment-related Hazard</b>	<b>Hazard:</b> Open hole next work work space	<b>Risk Assessment / Hierarchy of Methods:</b> Barricaded and tagged hole
<b>Non Electrical Hazard</b>	-	
<b>Special Precautions</b>	-	
<b>Task Name</b>	Breaker Installation-Replacement – Panelboards	
Means employed to restrict the access of unqualified persons to the work area	Yes	
Agree this task can be completed safely	Yes	
Job Briefing is complete including discussion of any job related hazards	Yes	
Hazard/Mitigator acknowledged	Yes	
A documented job procedure is available to complete this task	Yes	

## JSP Sign Off

JSP Number 69034

## Worker Signature



**JSP Submitted by:** User Test  
**Submitted date:** January 17, 2023 06:18 PM  
**JSP email recipient:** support@eworksafe.ca

## Supervisor Signature



**JSP Approved by:** Supervisor Test  
**Approved date:** January 17, 2023 01:19 PM  
**JSP email recipient:** support@eworksafe.ca