**Learning Objective**

All Wasatch Electric journeyman electricians will be able to:

* Demonstrate how to apply the safety hierarchy of controls,
* Communicate what conditions are acceptable for justifying energized electrical work,
* Demonstrate the proper procedure for establishing an electrically safe work condition when energized electrical work is not justified,
* Demonstrate the proper procedure for re-energizing a system that has been de-energized, and
* Demonstrate how to properly complete an Energized Electrical Work Permit

All Wasatch Electric journeyman electricians shall correctly perform the stated behaviors during a classroom evaluation in which they will simulate a de-energized work scenario and an energized work scenario. Students will be able to reference NFPA 70E 2024. Students will have the opportunity to repeat failed portions of their classroom evaluation until they receive a score of 100% and qualify for certification.

**Course Outline**

**Classroom Introductions and Warm-Up (5 minutes)**

**Introduction to Energized Work – Why Skill Mastery Matters (5 minutes)**

* Video: Dangers of electricity, importance of safe work practices

**Work Scenario 1 - How to Establish an Electrically Safe Work Condition (20 minutes)**

* Identifying sources of power: methods and techniques
* Interrupting the load current and opening the disconnecting devices for each source
* Visually verifying that all blades of disconnecting devices are fully open (when possible)
* Releasing stored electrical energy
	+ Discharging a capacitor
* Blocking or relieving stored nonelectrical energy
* Applying LOTO devices in accordance with Wasatch Electric’s LOTO Procedure
* Using an adequately rated portable test instrument to test each phase conductor or circuit part at each point of work, both phase-to-phase, and phase-to-ground to verify the absence of voltage
	+ Choosing the correct test instrument
	+ Proper use of the test instrument to verify the absence of voltage
* Grounding all circuit conductors where induced or stored electrical energy could exist in accordance with the proper procedure
* Restoring energy to the system safely

 **Work Scenario 2 - How to Work Safely on an Energized System (20 minutes)**

* Is an Energized Electrical Work Permit required?
* Documenting an Energized Electrical Work Permit
	+ Job Safety Plan
	+ Identifying shock and arc flash hazards,
	+ Assessing the risk of shock and arc flash hazards,
	+ Setting up barriers in accordance with the hazard level present,
	+ Selecting proper PPE:
		- Selecting arc flash rated clothing,
		- Selecting insulating and shielding materials, and
		- Inspecting PPE
	+ Consequences of a shock or arc flash incident
	+ Rescue plan

**Break (10 minutes)**

**Classroom Evaluation 1 – Establish an Electrically Safe Work Condition and Perform Work (20 minutes)**

* Follow procedures identified in work scenario 1 with simulated electrical equipment work.

**Classroom Evaluation 2 – Completing an Energized Work Permit and Executing Energized Work (20 minutes)**

* Follow procedures identified in work scenario 2 with simulated electrical equipment work.

**Conclusion and Wrap-Up (10 minutes)**

**Break (10 minutes)**