

Electrical Worker Classification

Non-Qualified Electrical Worker vs. Qualified Electrical Worker - Laboratory Activities & Limitations

This guidance document outlines the requirements and limitations for electrical work performed in laboratory environments and is intended to help personnel understand their responsibilities for working safely around electrical equipment. It describes the roles, work activities, and safety expectations associated with qualified and non-qualified electrical workers in support of laboratory operations.

	Non-Qualified Electrical Worker	Qualified Electrical Worker (QEW)
Definition	An employee who has not received specialized* (<i>*refer to the training section below</i>), job-specific electrical safety training covering the hazards associated with working on or near exposed energized electrical conductors or circuit parts	An individual who has *demonstrated the skills and knowledge related to the construction and operation of electrical equipment, has received electrical safety training appropriate to the assigned tasks, can identify electrical hazards and implement the appropriate protective measures, and is authorized by Columbia

	Has not demonstrated the skills and knowledge necessary to: • Recognize electrical hazards. • Determine the appropriate protective measures	University through their reporting structure to perform specified electrical work *Demonstrated through licensure, certification, apprenticeship, testing, documented experience, or other verification by a qualified individual
Examples	Laboratory technicians, researchers, scientists, students, etc.	Licensed electricians, electrical engineers, etc.
Energized Equipment Work Permission	Cannot work on or near energized electrical equipment that meets or exceeds 50 volts. Never remove electrical covers, guards, or panels	May work on energized equipment only for tasks they have received specific training for and can identify and avoid the associated hazards
De-energized Equipment Work Permission	May work with properly de-energized electrical equipment	May work with properly de-energized electrical equipment.

Permitted Safe Work Activities	Proper handling and use of cord- and plug-connected equipment Ensuring equipment is listed by an NRTL; must not be modified or used outside its listing intent Reporting all defective electrical equipment for repair by a QEW Proper switching of electrical disconnects and circuit breakers	All laboratory-related tasks on their own equipment. Energized electrical work within their specific training scope Hazard identification and avoidance for each specific tasks they are trained to perform.
Training Requirements	Training should include RASCAL TC0950* Task-specific Training conducted by an experienced person*	Training should include RASCAL TC7913 NFPA 70E - available through accredited third party training vendor Task-specific Training conducted by a qualified electrical worker
Scope Limits	Cannot perform any work on energized electrical	Work must remain limited to laboratory-related tasks on

	systems regardless of context	own equipment only. Must not extend to University infrastructure or hard-wired equipment. Being qualified for one task does not mean being qualified for all tasks
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