



Policy Interpretation

Electrical Safety FCX-HS03 | Release 09/2018

The following policy interpretation letter is provided to clarify the intent of the Electrical Safety Policy, or to communicate minor adjustments to the policy prior to a full document revision.

Always consult with your site Electrical Safety Steering Team member or Health and Safety for additional information.

GENERAL COMMENTS

The Electrical Safety Policy was created protect employees and contractors from the hazards of work around electrical installations and equipment. To accomplish this, sites must:

1. Manage and reduce arc flash levels to the lowest possible.
2. Reduce exposure to electrical shock.
3. Provide protection to personnel when electrical work is performed.
4. Maintain electrical equipment and installations as safe and serviceable

MCCs have unique electrical hazards that could be unfamiliar to non-electrical personnel. Only a qualified electrician has training and experience to identify the hazards and reduce the associated risk in the MCC. With the 600V training for non-electricians, personnel may be permitted to engage/disengage disconnects under 200 amps with management approval outside an MCC. This training does not qualify individuals to enter or work in MCC rooms or areas or operate breakers or switchgear.

Difference in “Qualified Electrician” or “Employee who has received NFPA 70E training”:

The NFPA 70E and FCX define a qualified electrician as “someone who has demonstrated the skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to identify the hazards and reduce the associated risk.” NFPA 70E training alone requires no demonstration of the above, and would not provide comprehensive knowledge related to the construction and operation of the electrical equipment and installations.

With respect to non-electrical personnel entering MCC rooms, the questions on the call refer to operational issues and not safety concerns. Please work with your team to come up with solutions, some of which may require a variance. Remote locations and unique processes may have to develop specific variances to current policy to address their unique challenges.

Any variance to policy must fully consider the risks associated with the task and the area and include specific actions that would mitigate risk and exposure to the lowest possible level.

SPECIFIC QUESTION AND ANSWERS

The new policy references non-electrical employees who are trained an authorized can operate 200 amp or less disconnects. Will MTI training be updated to reflect this?

Yes

Who has unrestricted access to MCC rooms?

Qualified and authorized electrical personnel.

What is required for non-electrical personnel to enter MCC rooms?

Entering an MCC room with electrical equipment increases the risk and exposure to possible arc flash or shock event. Any risk reduction method that can be used from hierarchy of risk control methods should be used. Individuals must have a specific task and need to be in the area, and be escorted by qualified electrician. The qualified electrician will conduct a work area inspection, address and explain any inherent hazards present, and may or may not need to remain in the MCC room for the duration of the task, dependent on the risks in the area and the work to be performed. If the scope of work changes in the MCC room contact a qualified electrician to reassess the hazards.

What do non-electrical contractors need to enter MCC rooms?

Same response as above.

What do electrical contractors need to enter MCC rooms?

A specific task and need to be in the area. Equivalent training to FCX electricians (qualified electrician as defined above).

What work does not require a permit under energized electrical work?

Any of the below when working with medium voltage (1001-34.5kv) is permitted without a permit.

- Switching of motor starters or circuit breakers is not considered energized work as long equipment is in properly installed, maintained on a three year cycle, and has no evidence of impending failure.
- Racking (insertion or removal from the bus) of starters or breakers when energized with doors open or closed is energized work. No energized work permit is required. Follow PPE information on the label. PPE will be worn while installing remote racking gear. Recommend "remote racking/switching" be implemented and used on energized gear.
- Inserting or removing of starters / breakers from enclosure on an energized bus is energized work. No energized work permit is required. PPE must be worn per the arc flash label when the breaker is being removed and installed in the cubicle. PPE must also be worn per the arc flash label if breaker door is open when visually checking the position of the shutter.

Troubleshooting is acceptable without a permit on all voltages under 1000V.

Performing energized repair work on medium voltage (1001V-34.5KV) is not permitted.

Reference the technical supplement for additional information on low voltage energized work.

What is included in NFPA 70E training?

NFPA 70E is a standard developed to provide a safe working area for employees relative to the hazards from the use of electricity. It is approximately two to three days in length. Some topics include: electrically safe work practices, safety related maintenance requires, administrative controls for employee workplaces, hazards associated with electrical energy during activities, etc. **NFPA 70E training alone would not qualify an individual to be in an MCC room/area.**

Should access to all areas with disconnects over 200amps be restricted?

No, but disconnects outside the MCC that can be operated by trained non-electrical personnel should be labeled as such.