Plant Operations Energized Electrical Work Permit

An Energized Electrical Work Permit is required anytime electrical work is done on systems of 50 volts or greater and not being fully locked/tagged out. Permits must be approved by an appropriate safety representative and a qualified maintenance manager, each with approving authority.

Preliminary Information
Project information should outline what work is to be done and why it needs to be done without lockout/tagout. This information should be completed by the supervision of the people that will do the energized work. The requestor is the person wanting the work done, such as the facility manager, the project manager, the shop foreman, etc. The requester’s signature is not required, but the requestor should be aware of the information.

Requester: ____________________  Work Request #: ______________  Date: ____________

Description of Work: ____________________________________________________________________
_______________________________________________________________________________________

Circuit Information: Location: ______________________________________________________________

   Equipment: ______________________________________________________________

Date/Time Work is Planned to Occur: _________________________________________________________

Reason equipment/circuit(s) cannot be locked out (include attachment, if necessary):____________________
_______________________________________________________________________________________

Consequences of unexpected fault or loss of power while energized work is in progress: __________________
_______________________________________________________________________________________

Requestor of energized work (e.g., building occupant, facility manager, project manager, foreman, etc.):

   Name & Title: ___________________________________  Signature: ______________  Phone: ____________

REQUIRED: Safety Representative (OSEH): Approval of reason to allow work to be done while energized:
Energized work must be approved by the Plant Ops safety department (i.e., OSEH) to ensure that the reasons for doing the energized work are appropriate and in compliance with policies and regulations (e.g., safer to leave power on, turning power off is infeasible or impractical, etc.).

Approve: □  Disapprove: □  Name/Title: __________________________  Signature: __________________________

Details of Work
The details of the energized work should be completed by a qualified person that will be doing the work. Signature(s) of the qualified worker(s) are not required, but workers must be fully trained, briefed, equipped and understand the procedures to be followed.

Detailed description of work to be performed: _____________________________________________________
_______________________________________________________________________________________

Description of safety work practices to be followed: __________________________________________________________________________________________
_______________________________________________________________________________________

Shock Protection Boundary: ____ Flash Protection Boundary: _____ Flash Protection Hazard Category: _____

PPE required: ______________________________________________________________________________

Means of restricting access to work area: _________________________________________________________

Job Briefing Completed: ______

Qualified worker(s): Are adequate worker safety precautions in place and being followed?:

   Name & Title: ___________________________________  Signature: _________________________________

   Name & Title: ___________________________________  Signature: _________________________________

REQUIRED: Approver (e.g., electrically qualified General Foreman or other electrically qualified manager):
All energized work permits must be reviewed and approved by two qualified persons, at least one in a managerial position, before work can begin.

Approve: □  Disapprove: □  Name/Title: __________________________  Signature: __________________________

Close Permit: Each permit is for a specific location, time frame, and task. Once work is complete, each permit must be closed out. Any incidents, unexpected occurrences or deviations from regular work practices will be noted and discussed with the workers doing this work and their supervisors.

   Name & Title: ___________________________________  Signature: _________________________________
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Approach Distance († assumes clearing time and available bolted fault current not exceeding 100 kA cycles (1667 ampere seconds))

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<tbody>
<tr>
<td>50 to 300 V</td>
<td>10 ft 0 in.</td>
<td>3 ft 6 in.</td>
<td>Avoid contact</td>
<td>Avoid contact</td>
<td>4 ft 0 in.</td>
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<tr>
<td>301 to 750 V</td>
<td>10 ft 0 in.</td>
<td>3 ft 6 in.</td>
<td>1 ft 0 in.</td>
<td>0 ft 1 in.</td>
<td>4 ft 0 in.</td>
</tr>
<tr>
<td>751 V to 15 kV</td>
<td>10 ft 0 in.</td>
<td>5 ft 0 in.</td>
<td>2 ft 2 in.</td>
<td>0 ft 7 in.</td>
<td>4 ft 0 in.</td>
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Arc Flash Protection Categories

<table>
<thead>
<tr>
<th>Category 0:</th>
<th>Basic work clothing for electrically qualified workers</th>
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<tbody>
<tr>
<td>Category 1:</td>
<td>Protection for electrically qualified workers</td>
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<tr>
<td></td>
<td>Basic work clothing (Category 0) plus: 4 cal/cm² FR coveralls; 4 cal/cm² arc-flash face shield; voltage rated gloves; hard hat; and hearing protection</td>
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<tr>
<td>Category 2*:</td>
<td>Protection for electrically qualified workers</td>
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<td></td>
<td>Basic work clothing (Category 0) plus: 8 cal/cm² FR coveralls; 8 cal/cm² arc-flash face shield; 8 cal/cm² arc-flash balaclava; voltage rated gloves; hard hat; and hearing protection</td>
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<tr>
<td>Category 4:</td>
<td>Protection for electrically qualified workers</td>
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<td></td>
<td>Basic work clothing (Category 0) plus: 40 cal/cm² FR coveralls; 40 cal/cm² arc-flash hood w/ face shield; and hearing protection</td>
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Example Tasks Performed on Energized Equipment with acceptable PPE Requirements (for more information contact foreman or OSEH)

Panelboards or Other Equipment Rated 240 V and Below — Note 1

- Thermography & non-contact inspections outside restricted approach boundary
- CB or fused switch operation with covers on
- CB or fused switch operation with covers off
- Work on energized conductors and parts, including voltage testing
- Remove/install CBs or fused switches
- Removal of bolted covers (to expose bare, energized conductors and parts)
- Opening hinged covers (to expose bare, energized conductors and parts)
- Work on energized conductors & parts of equip. fed directly by branch circuit of panelboard

Panelboards/Switchboards >240 V to 600 V (w/ molded case or insulated case CBs) - Note 1

- Thermography & non-contact inspections outside restricted approach boundary
- CB or fused switch operation with covers on
- CB or fused switch operation with covers off
- Work on energized conductors and parts, including voltage testing
- Work on energized conductors & parts of equip. fed directly by branch circuit of panelboard

600 V Class Motor Control Centers (MCCs) or Switchgear — Note 2 (except as indicated)

- Thermography & non-contact inspections of MCCs outside restricted approach boundary
- CB or fused switch operation or starter operation with enclosure doors closed
- Reading a panel meter while operating a meter switch
- CB or fused switch or starter operation with enclosure doors open
- Work on energized conductors and parts, including voltage testing
- Work on control circuits with energized conductors and parts 120 V or below, exposed
- Work on control circuits with energized conductors and parts >120 V, exposed
- Insertion or removal of starter “buckets” from MCC — Note 3
- Application of safety grounds, after voltage test
- Removal of bolted covers (to expose bare, energized conductors and parts) — Note 3
- Opening hinged covers to MCCs (to expose bare, energized conductors and parts) — Note 3
- Opening hinged covers to switchgear (to expose bare, energized conductors & parts) — Note 4

Other 600 V Class (277 V through 600 V, nominal) Equipment — Note 2

- Miscellaneous equipment or cable trough or tray cover removal or installation
- Work on energized conductors and parts, including voltage testing
- Insertion or removal of plug-in devices into or from busways

Lighting or small power transformers (600 V, maximum)

- Removal of bolted covers (to expose bare, energized conductors and parts)
- Opening hinged covers (to expose bare, energized conductors and parts)
- Work on energized conductors and parts, including voltage testing
- Application of safety grounds, after voltage test

Notes:
1. Maximum 25 kA short circuit current available; maximum 0.03 second (2 cycles) fault clearing time.
2. Maximum 65 kA short circuit current available; maximum 0.03 seconds (2 cycles) fault clearing time.
3. Maximum 42 kA short circuit current available; maximum 0.33 (20 cycles) fault clearing time.
4. Maximum 35 kA short circuit current available; maximum up to 0.5 sec (30 cycles) fault clearing time.

Energized Work Permit 5-10-10