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| SLAC_Logo_hires_small | Chapter : [Electrical Safety](https://www-grouphttps://www-group.slac.stanford.edu/esh/hazardous_activities/electrical/)    Product ID: [247](https://www-internal.slac.stanford.edu/esh/docreview/reports/revisions.asp?ProductID=247) | Revision ID: | Date Published: 15 June 2021 | Date Effective: 15 June 2021  URL: [https://www-group.slac.stanford.edu/esh/eshmanual/references/electricalFormEEWP.pdf](https://www-grouphttps://www-group.slac.stanford.edu/esh/eshmanual/references/electricalFormEEWP.pdf) | [docx](https://www-grouphttps://www-group.slac.stanford.edu/esh/eshmanual/references/electricalFormEEWP.docx) |

An approved energized electrical work permit (EEWP) is required for all manipulative energized work on hazardous electrical equipment (see [Chapter 8, “Electrical Safety”,](https://www-grouphttps://www-group.slac.stanford.edu/esh/hazardous_activities/electrical/) Section 10.3.4). Manipulative energized work includes assembly, disassembly, tightening, adjusting or rearrangement of components while they are energized.

Work on energized non-hazardous equipment as specified in [Chapter 8, “Electrical Safety”,](https://www-grouphttps://www-group.slac.stanford.edu/esh/hazardous_activities/electrical/) Section 10.3.1, as well as testing, troubleshooting, and voltage measuring on energized hazardous equipment, is exempt from the required EEWP per [NFPA 70E](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=70E), Article 130, provided that safe work practices and personal protective equipment are used.

# Instructions

Important The justification for performing energized work must be safety-based, that is it must be shown that it is safer to perform the work energized than to perform the work de-energized. Convenience may not be used as the sole justification for energized work.

* Complete sections 1 and 2 with verifications and attach supporting documents before seeking approving authority signatures:
* Section 1 must be complete before Section 2 and 3 approval signatures are obtained.
* The approved EEWP and EWP or JSA must be at the jobsite while performing work.
* A closeout signature in Section 4 is required within seven days after completion of the work.
* Upon completion of work provide a copy of the EEWP (with Section 4 complete) and the electrical work plan (EWP) or job safety analysis (JSA) to the electrical safety officer (ESO).
* Approvals are granted only for the specific work planned, period, location, personnel, and conditions described. Any changes to the planned work once energized electrical work proceeds will immediately void any authority to continue work. It is essential that the energized electrical work be completely understood in advance and be thoroughly planned, with strict compliance to the authorized procedures and process.
* Approvals required:
* Electrical safety officer (ESO)
* Chief safety officer (CSO)[[1]](#footnote-1)
* Directorate (associate laboratory director or director)1
* Laboratory Director’s Office (laboratory director or laboratory deputy director)1

# Section 1 Request for Energized Electrical Work across Approach Boundaries *(complete in full)*

|  |  |  |
| --- | --- | --- |
| Requester’s name (print): | Phone: | Date: |
| Describe the electrical equipment and scope of energized electrical work: (be specific) | | |
| Compelling need to support a request to do work on energized electrical equipment: (the justification must be safety-based; that is, explain why it is safer to perform the task energized than de-energized) | | |
| Alternatives to avoid doing work on energized electrical equipment: | | |

## Department request – review and approval

|  |  |
| --- | --- |
| Approving authority:  system engineer or  system owner | |
| Name (print): | |
| Approval / disapproval:  Yes, proceed  No, do not proceed | |
| Signature: | Date: |

## Department request – review and approval

|  |  |
| --- | --- |
| Approving authority (department head) | |
| Name (print): | |
| Approval / disapproval:  Yes, proceed  No, do not proceed | |
| Signature: | Date: |

# Section 2 Energized Electrical Work Approach Boundaries and Supporting Information *(complete in full)*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Circuit location building: | | | Panel or equipment / circuit: | | | |
| Energized components exposed to workers: | | | | | | |
| Nominal circuit potential (volts): | Frequency (hertz): | | | Short circuit current (amperes): | | |
| Boundary access intrusion limit (in inches) for flash: | Limited: | | | Restricted: | | |
| Arc flash protection boundary is from arc flash analysis (calculated): Yes  (if no arc flash analysis exists then one must be performed) | | | | | | |
| Describe safe work procedures, hazard analysis, access control, and mitigating PPE in detail on an attached electrical work plan (EWP) or non-routine job safety analysis (JSA). | | | | | | |
| Brief work description: | | | | | | |
| Start work date: | | | End work date: | | | |
| Expected duration of actual boundary intrusion (hours): | | | Number of workers crossing boundary: | | | |
| SLAC department / group performing or directing energized work: | | | | | Phone: | |
| Subcontractor performing energized work (if any): | | | | | Phone: | |
| First qualified electrical worker (in charge): | | | | | Phone: | |
| Second qualified electrical worker (backup): | | | | | Phone: | |
| Safety watch qualified worker: | | | | | Phone: | |
| Names of other workers: | | | | | | |
| For the following three confirming verifications, project lead or supervisor normally signs. Verification may NOT be signed by the qualified workers listed above or by any person named in request Section 1. | | | | | | |
| A non-routine job safety analysis (JSA) or electrical work plan (EWP) is attached:  Yes  No | | | | | | |
| The JSA / EWP has been reviewed in detail and discussed by the affected qualified workers and is adequate for the energized electrical work described. | | | | | | |
| Verified by (print): | | Signature: | | | | Date: |
| Current training reports for the qualified electrical workers listed are attached:  Yes  No | | | | | | |
| Qualified electrical worker training is current and adequate for the energized electrical work described. | | | | | | |
| Verified by (print): | | Signature: | | | | Date: |
| Current personal protective equipment (PPE) electrical test reports are attached:  Yes  No | | | | | | |
| All required PPE is listed on the JSA / EWP, is certified by test to be safe, is usable during the period of the work, is in the possession of the listed workers qualified to use it, and is adequate for the energized electrical work described. | | | | | | |
| Verified by (print): | | Signature: | | | | Date: |

# Section 3 Approvals

## Electrical Safety Officer *(required for all EEWPs)*

|  |  |  |
| --- | --- | --- |
| Approving authority (electrical safety officer) | | |
| Name (print): | | |
| Approval / disapproval:  Yes, proceed  No, do not proceed | | |
| Signature: | Date: | Time: |

## Chief Safety Officer *(not required for work on energized batteries and battery banks)*

|  |  |  |
| --- | --- | --- |
| Approving authority (chief safety officer) | | |
| Name (print): | | |
| Approval / disapproval:  Yes, proceed  No, do not proceed | | |
| Signature: | Date: | Time: |

## Directorate *(not required for work on energized batteries and battery banks)*

|  |  |  |
| --- | --- | --- |
| Approving authority (associate laboratory director or director or designee) | | |
| Name (print): | | |
| Approval / disapproval:  Yes, proceed  No, do not proceed | | |
| Signature: | Date: | Time: |

## Laboratory Director’s Office *(not required for work on energized batteries and battery banks)*

|  |  |  |
| --- | --- | --- |
| Approving authority (laboratory director or laboratory deputy director or designee) | | |
| Name (print): | | |
| Approval / disapproval:  Yes, proceed  No, do not proceed | | |
| Signature: | Date: | Time: |

# Section 4 Closeout *(complete and submit to ESO within seven days)*

|  |  |  |
| --- | --- | --- |
| Following completion of energized electrical work, the lead worker or fist-line supervisor or manager has reviewed the process and procedures implemented to determine if improvements are indicated that would increase the safety of that work if it were attempted again, or similar work if it were done in the future. | | |
| Verified by name (print): | Signature: | Date: |
| Brief summary of review findings: (attach detailed summary as needed) | | |
| Brief summary of indicated improvements: (attach detailed summary as needed) | | |

# Section 5 Adequacy Review

|  |  |  |
| --- | --- | --- |
| Review authority (electrical safety officer) | | |
| Name (print): | | |
| Approval / disapproval:  Yes, work safety adequate  No, improvements are warranted (describe): | | |
| Signature: | Date: | Time: |

1. Exception: for work on energized batteries and battery banks, CSO, directorate, and Laboratory Director’s Office approvals are not required. [↑](#footnote-ref-1)