

U.S. DEPARTMENT OF ENERGY-BONNEVILLE POWER ADMINISTRATION(BPA)
CONTRACT ENERGIZED ELECTRICAL WORK PERMIT

Permit Shall be posted on Job Site and kept for 1 year after job completion.

1. Facility/Station: _____ | 2. Room/Area: _____

3. Contract Worker (Name) _____ | 4. Work Phone Number _____ | 5. Extended Duration _____ | 6. One-time Use Only _____

7. Contract Supervisor (Name) _____ | 8. Work Phone Number _____ | 9. Start Date _____ | 10. Expiration Date _____

11. Description of work to be done _____

12. Description of Circuit/Equipment _____

13. Justification for why equipment cannot be de-energized _____

Shock Hazard Analysis

14. Maximum Voltage _____ | 15. Limited Approach Boundary _____ | 16. Minimum Approach Distance _____

17. Insulated Tools/Equipment Rating _____ | 18. Glove Rating/Class _____

Arc Flash Hazard Analysis

19. Incident Energy Level (Cal/cm²) _____ | 20. Arc Flash Boundary _____

NOTE: Unqualified workers may be escorted into the limited approach boundary but may NOT enter the arc flash boundary without all of the proper PPE as required for the incident energy.

21. Arc Rated Clothing Worn _____ | 22. ATPV Rating Cal/cm² _____

23. Safety Checklist: All items must be checked and discussed as part of the pre-job briefing. If any item cannot be met provide justification in the space provided. Any items not checked will require Supervisory and Organizational Manager approval prior to work.

All Workers involved must be trained, qualified, and have full knowledge of equipment being worked on.

A minimum of one additional Qualified Electrical Worker is required. This person must be able to de-energize all power sources and have immediate access to a telephone or radio to call EMS in case of emergency.

Necessary personal protective equipment to safely perform the assigned task. Removal of all jewelry and metal apparel.

Means employed to restrict the access of unqualified persons from the work area (barricades/warning signs): _____ Documented job briefing including discussion of any additional job-specific hazards.

Electrical Contact Accident Protocol reviewed and available: _____

Justification: _____

Do you agree the above described work can be done safely? (If no, return to requester) Yes No

24. Contract Qualified Electrical Worker performing Hazard Analysis (Name) _____ | a. Date _____

25. BPA District Engineer/Substation Operations Representative (Name) _____ | a. Date _____

Authorization (Must be signed prior to start of work)

26. COTR (Name) _____ | a. Date _____ | 27. Prime Contract Project Manager(Name) _____ | a. Date _____

28. Supervisor (Signature) _____ | a. Date _____

29. Additional Workers Involved

Printed or typed name(s): _____ Signature(s) _____ Date(s) _____

Instructions:

BPA's intent of the Contract Energized Electrical Work Permit is to ensure that all work is conducted de-energized whenever possible.

- 1. Facility/Station:** This is the general location of the work. Example: substation name, building name, etc.
 - 2. Room/Area:** This is a more specific description of where the work is taking place. Example: Relay house 1, Control House, Second floor hallway etc.
 - 3. Contract Worker:** Enter the person's name who will be performing the work
 - 4. Work Phone Number:** Enter the phone number to be used to contact the person performing the work. It may be the supervisor's phone number if the employee does not have a phone.
 - 5. Extended Duration:** Check this box if the work will be occurring for more than one work day. DO NOT FILL OUT A SINGLE PERMIT FOR MULTIPLE JOBS. Each job requiring a permit will need a separate permit. Example: replacing or adding several molded case breakers into a single panel requires 1 permit. Replacing or adding molded case breakers into separate panels requires a permit for each panel.
 - 6. One Time Use:** Check this box if the work is expected to be completed on the same day. Note if the work extends beyond a single day go back and check the extended duration box and note that the work was extended. A new form does not need to be completed.
 - 7. Contract Supervisor:** The name of the direct supervisor of the contract worker.
 - 8. Work Phone Number:** The Direct Supervisor's phone number. This may be the same as the number entered in #4 if the supervisor's number was given there.
 - 9. Start Date:** The date that the actual work requiring the permit started.
 - 10. Expiration Date:** This is the date when the work is expected to end. If the work continues past the expected date a new date may be entered by hand. The permit does not actually expire until the work is deemed complete.
 - 11. Description of Work to be done:** Self-explanatory. Enter as much information about the scope of the job requiring the permit.
 - 12. Description of circuit/equipment:** Enter as much information as needed to understand the limits/parameters of the work. Example: Replacing bad order ACB in 480V panel PL-4.
 - 13. Justification of why equipment cannot be de-energized:** This should be as detailed as possible. It should not read "Not feasible", "Operator said no", "Dispatch would not allow". Example: De-energization of the station service panel YP-2 would require the entire station to be run on batteries. On the last battery maintenance cycle the station batteries were found to be in need of replacement and should only be relied upon for emergencies. Batteries are scheduled to be replaced but this work cannot wait for the replacement due to critical loads.
 - 14. Maximum Voltage:** This is the highest nominal voltage rating of the equipment covered under the permit. It is usually found on the arc flash label. If the work involves a transformer, then the high side voltage should be noted.
 - 15. Limited Approach Boundary:** This is the distance which unqualified individuals must be kept from crossing without an escort. It protects against shock hazard. This or the Arc Flash Boundary (whichever is *greater*) will be used to determine your barricade distance.
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- 16. Minimum Approach Distance:** The distance which qualified individuals must maintain without one of the 5 provisions in APM Rule M-1 being in place.
- 17. Insulated tool/ Equipment rating:** This is the voltage rating of insulated tools or barriers used to prevent contact with energized parts.
- 18. Glove rating /class:** This is the rating of the glove the worker is using to prevent accidental contact. Remember there are different ratings for AC and DC. Also, if the glove is used without a leather protector it must be derated by 50% or 1 voltage class, whichever is *greater*. The glove must also be electrically retested before being used at full voltage and may not be used if there is a possibility of puncture or damage.
- 19. Incident Energy cal/cm²:** This is the calorie rating of the circuit being worked. It can be found on the affixed label or acquired from the BPAHotStickCurves (*Dynamic Use*) spreadsheets.
- 20. Arc Flash Boundary:** This is the distance that the incident energy is 1.2 calories/cm² or less. It can be found on the affixed label. It is the second factor used in determining where the barricade distance must be established to prevent unqualified workers from entering into the work zone. **NOTE:** Unqualified workers may be escorted into the limited approach boundary but may NOT enter the arc flash boundary without all of the proper PPE as required for the incident energy.
- 21. Arc Rated Clothing Worn:** This is the clothing that will be required to meet or exceed the incident energy level. If layering is used list all layers of clothing.
- 22. ATPV Rating cal/cm²:** List the rating of the clothing worn. If layering is performed list the total ATPV rating of the layered system or the rating of the outermost layer if it exceeds the incident energy. This rating must meet or exceed the incident energy.
- 23. Safety Checklist items:** All items must be checked and discussed as part of the pre-job briefing. If any item cannot be met provide justification in the space provided. Any items not checked will require Supervisory and Organizational Manager approval prior to work.
- 24. Contract Qualified Electrical Worker (QEW) Performing Hazard Analysis:** This is the signature block for the QEW who performed the Shock and Arc Flash Hazard analysis. It does not have to be the individual who will be performing the work.
- 25. BPA District Engineer/Substation Operations Representative:** This is the signature of the person who confirmed that the work must be performed energized.
- 26. COTR:** This is the signature of the Contract Officer's Technical Representative for the contract.
- 27. Prime Contract Project Manager:** This is the project manager for the prime contractor for the project.
- 28. Supervisor:** This is the signature of the supervisor for the person performing the work. This signature may be signed as verbal consent given. This cannot be given as a third party approval. If the same individual as block #27, write in "same as #27".
- 29. Additional Workers Involved:** List all workers who will be inside of the arc flash boundary while the work is being performed. Each name listed **shall** also have a signature that the individual agrees with the information on the form. Any worker not wishing to sign may not be allowed into the arc flash boundary until the work has been placed into an electrically safe work condition.
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